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ABSTRACT

In response to a provision of the Education Amendments of 1978 concerning evaluation practices and procedures, this report examines four aspects of evaluation in education which focus on how funds allocated to evaluation can be spent more effectively and yield more useful results. On this basis, groups of recommendations are made to both Congress and the Department of Education. These are presented in an opening summary and the discussed more fully in each chapter. The first chapter is designed as an introduction to the background and scope of the report. A definition of evaluation is given in chapter two, which also addresses congressional concern with uniform methods and measures in the context of delineating different types of evaluation and their appropriate use. Improvement of the quality of evaluation forms the substance of chapter three. Discussion in chapter four centers upon the utilization and dissemination of evaluation results. The final chapter makes recommendations for improved management and organization and presents implications for this derived from preceding chapters. Appended are a glossary, references, and three appendixes concerning types of federal educational evaluation activities, the parties who conduct them, and the organization of the evaluation system at state and local levels. (Author/AEF)

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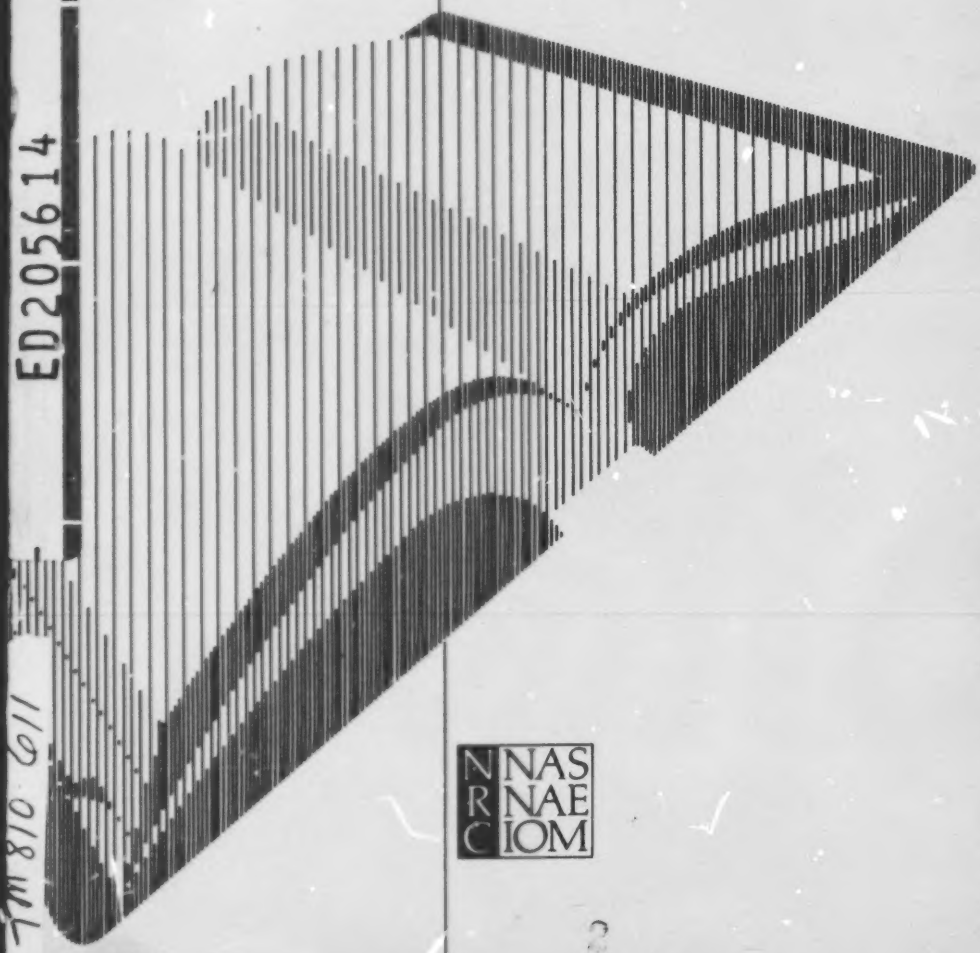

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Program Evaluation in Education:

When? How? To What Ends?

Senta A. Raizen and Peter H. Rossi,
Editors

Committee on Program Evaluation in Education
Assembly of Behavioral and Social Sciences
National Research Council

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Committee on Program Evaluation in Education

PETER H. ROSSI (Chair), Director, Social and Demographic Research Institute, University of Massachusetts

MARVIN C. ALKIN, Professor of Education and Program Director, Center for the Study of Evaluation, University of California, Los Angeles

ROBERT F. BORUCH, Director, Program on Methodology and Evaluation Research, Northwestern University

NATHAN S. CAPLAN, Program Director, Institute for Social Research, and Professor of Psychology, University of Michigan

CHRISTOPHER T. CROSS, Federal Marketing Manager, Westinghouse DataScore Systems, Westinghouse Learning Corporation, Washington, D.C.

EDWARD M. GRAMLICH, Director, Institute of Public Policy Studies, University of Michigan

FREDA M. HOLLEY, Director, Office of Research and Evaluation, Austin Independent School District, Austin, Texas

HENRY T. INGLE, Director, Program Evaluation Division, Office of Fair Housing and Equal Opportunity, U.S. Department of Housing and Urban Development

JAMES M. JONES, Director, Minority Fellowship Program, American Psychological Association, Washington, D.C.

SARA LAWRENCE LIGHTFOOT, Professor of Education and Social Policy, Graduate School of Education, Harvard University

WILLIAM C. ROCK, Professor, Department of Educational Administration, State University of New York, Brockport

HOWARD ROSEN, Adjunct Professor, School of Business Administration, American University

KARL E. WEICK, Nicholas H. Noyes Professor of Organizational Behavior and Professor of Psychology, Graduate School of Business and Public Administration, Cornell University
ROBERT K. YIN, Visiting Associate Professor, Department of Urban Studies and Planning, Massachusetts Institute of Technology

SENTA A. RAIZEN, Study Director
DIANE L. GOLDMAN, Administrative Secretary

Contents

PREFACE vii

SUMMARY 1

1 INTRODUCTION 23

2 DEFINING EVALUATION 35

3 QUALITY OF EVALUATION 61

4 USING EVALUATION RESULTS 97

5 ORGANIZING AND MANAGING EVALUATION ACTIVITIES 133

GLOSSARY 179

REFERENCES 183

APPENDIXES 195

A FEDERAL EVALUATION ACTIVITIES IN EDUCATION: AN OVERVIEW
Elizabeth R. Reisner 195

B PERFORMERS OF FEDERALLY FUNDED EVALUATION STUDIES
Laure M. Sharp 217

C HOW THE EVALUATION SYSTEM WORKS: THE STATE AND LOCAL LEVELS
Freda M. Holley 246

D INDIVIDUALS INTERVIEWED AND EXTERNAL PARTICIPANTS IN COMMITTEE MEETINGS 275

Preface

The Education Amendments of 1978 (P.L. 95-561), which reauthorized the major federal elementary and secondary school programs, included the following provision:

STUDY OF EVALUATION PRACTICES AND PROCEDURES

SEC. 1526. The Commissioner of Education shall conduct a study of evaluation practices and procedures at the national, State, and local levels with respect to federally funded elementary and secondary educational programs and shall include in the first annual report to Congress submitted more than one year after the date of enactment of this Act proposals and recommendations for the revision of modification of any part or all of such practices and procedures. Such proposals and recommendations shall include provisions--

(1) to ensure that evaluations are based on uniform methods and measurements;
(2) to ensure the integrity and independence of the evaluation process; and
(3) to ensure appropriate follow-up on the evaluations that are conducted.

This requirement has provided the impetus for the present report. In response to the legislative request, the National Academy of Sciences was asked by the Office

of Education (OE) to undertake a study of program evaluation in education. The purpose of the study was to recommend ways of increasing the effectiveness and usefulness of the OE's evaluation efforts. The study was started late in 1979 and completed under the auspices of the new Department of Education, the successor agency to OE.

It was explicit in the request made by OE that the core of the study would be a report by an expert committee. The Committee on Program Evaluation in Education came to life in early 1980, convened under the auspices of the Assembly of Behavioral and Social Sciences. Its membership was selected to represent appropriate disciplines as well as different viewpoints and responsibilities regarding evaluation, in recognition of the fact that the problems to be addressed related as much to the organization, management, and policy uses of evaluation as to questions of evaluation strategy, methodology, and quality. The disciplines represented on the Committee included communications, economics, educational administration, educational psychology, experimental psychology, political science, social psychology, sociology, sociology of education, and statistics (psychometrics). The experience represented included: carrying out large-scale and smaller evaluations in different settings (university, local school system, private sector); commissioning evaluations and managing more general programs of support for applied social research and development (R&D) within several government agencies; serving as staff to a major congressional education committee; and carrying out pertinent research on methodology and utilization of evaluations and on social R&D. Several members had also conducted general assessments of the field of evaluation.

The Committee held three two-day meetings and a longer working conference to develop the substance of t report. Richard A. Berk of the University of California, Santa Barbara, assisted the Committee as a consultant during the working conference. During its first two meetings, the Committee focused on defining the key issues to be addressed. Senior staff from the Department of Education and from education committees in Congress met with the Committee to give us the benefit of their views. (See Appendix D for a list of participants.) In addition to the concerns expressed by Congress with methods, integrity, and follow-up, Department officials asked that the following organizational topics be

addressed: location of evaluation activities within the Department, coordination of evaluation within the Department, participation in evaluation design and use by program and planning officials, and continuing advisory mechanisms for evaluation. Department staff also raised the following nonorganizational issues: distinguishing among types of evaluations, planning of evaluations, strategic considerations in evaluation management, and appropriate utilization.

Starting from those expressed concerns, the Committee explored other related issues and came to organize the report around four major topic areas: distinguishing between evaluation types and choosing appropriate strategies and procedures; improving the quality of evaluations; increasing the effective use of evaluations; and improving the organization and management of federally funded evaluations in education. The congressional concern with uniform methods and measures was subsumed under the broader topic of evaluation strategies and procedures, since consideration of methods and measures is possible only in the context of a specific set of policy questions and after an evaluation strategy and procedure have been determined.

In carrying out its study, the Committee relied on various kinds of information to supplement the members' knowledge and experience. Members and staff conducted informal interviews with employees and ex-employees of OE, of the Department of Education, of other federal R&D support agencies, and with congressional staff familiar with the provision calling for the assessment of evaluation practices. (For a list of persons interviewed, see Appendix D.) Two papers were commissioned from consultants to supply detailed information on the evaluation activities within the Department and on the performer communities that carry out evaluation studies; they appear as Appendixes A and B. A third paper, contributed by Committee member Freda M. Holley, provided insight into evaluation activities at the state and local levels and is included as Appendix C. Working papers were also prepared by me and Richard A. Berk and by members Marvin C. Alkin, Robert F. Boruch, and Robert K. Yin. These have been published by their individual authors under the aegis of the Center for the Study of Evaluation (Baker 1980). Material from these papers and from various drafts of chapter sections prepared by other Committee members has been incorporated in the report. Additional background material available

to the Committee included agency planning documents, annual reports, and internal critiques relating to evaluation activities and their application to decisions about programs.

This report is not a comprehensive examination of program evaluation in education. The intent of the sponsoring agency was to have a group of experts apply their knowledge and experience to the problems identified by Congress and the Department. This has structured both the selection of subject matter and the nature of the evidentiary base, which is drawn largely from existing data and analyses. Neither money nor time was available for an empirical study, such as: an examination of the quality of procurement instruments, of resulting proposals, or of evaluation reports; systematic surveys of sponsors or performers on their experience with different types of evaluations and management practices; or primary analysis of the use of evaluation results. However, the Committee was able to use the findings of a second and more extensive project funded by OE in response to a congressional request. This project, located at Northwestern University, included collection of empirical data and examination of the literature on evaluation of federally supported education programs at the national, state, and local levels. During its third meeting, the Committee reviewed the reports of this project and became familiar with its findings (Boruch and Cordray 1980). In addition, the director of the Northwestern project served on the Committee, which was thus able to take advantage of the complementary nature of the two projects.

The Committee is grateful for the assistance it received from many other sources. We owe special thanks to John W. Evans, the former head of the central evaluation unit of the Department of Education, who made himself and his staff fully available to the Committee, and to Marshall Smith, former executive assistant to the Secretary. They and other staff within the Department of Education provided much data and were generous with their time and the effort needed to comply with our requests for material and information. Staff members from the National Science Foundation and from Congress also gave generously of their time.

Members of the Assembly of Behavioral and Social Sciences (ABASS) of the National Research Council and of the Report Review Committee of the National Academy of Sciences provided thoughtful comments on an earlier draft

of the report that helped improve the final version. We are grateful, too, to David A. Goslin, executive director of ABASS, for his support and valuable suggestions, to Eugenia Grohman, associate director for reports of ABASS, who critically edited the report, and to Elaine McGarraugh, editorial assistant, who supervised its production.

Finally, we wish to thank Rose S. Kaufman, whose administrative support early on facilitated the organization and first meetings of our Committee, and Diane L. Goldman, who ably took over from her as our administrative secretary, typed the many versions of the report, and provided us with much needed logistical support and technical assistance.

Peter H. Rossi, Chair
Committee on Program Evaluation in Education

Summary

Evaluation as an established field of applied social science research has grown rapidly over the last 20 years, accompanied by the expectation that the empirical knowledge resulting from evaluation studies would improve the process of making decisions about social programs. In education, more than $40 million is now spent per year for evaluation activities by the Department of Education; about $60 million more in federal funds is spent by other federal agencies and by state and local agencies. But as the number of evaluation studies and their sophistication have grown, so has concern that evaluation work has not lived up to its potential. In response to such concerns on the part of Congress, the Committee on Program Evaluation in Education examined four aspects of evaluation in education: the varieties of evaluation and their respective roles; the quality of evaluation efforts; the use of evaluation results; and the organization and management of evaluation activities. We focused on these topics because they were identified to be of greatest interest to the two primary audiences for our report: members of Congress and their staffs and high-level officials in the Department of Education.

FINDINGS AND CONCLUSIONS

Two major findings permeate the Committee's report. First, evaluation must be viewed as a system that involves many organizations and many parties. Attempts to improve the quality of evaluation studies or to increase the use of evaluation results must deal with

systemic problems rather than with the specific shortcomings of any individual evaluation. Therefore, much of this report deals with such systemic issues as the role of evaluation, the context in which it takes place, and the diverse interests of the many groups concerned with federal education programs. Second, both the quality and the use of evaluations could be considerably enhanced through better management procedures. At present, the processes for soliciting and funding studies constrain creativity; quality controls are insufficient; limited review procedures at all stages inhibit the development of an active intellectual marketplace--the most effective arbiter of quality and use. Hence, most of our recommendations are designed to improve the procedures that now govern federally funded evaluations in education. Improvement in management procedures is the single most important step that Congress and the Department could take if they wish to achieve better quality in evaluations and to increase the likelihood that evaluation results will be used appropriately.

The Role of Evaluation

To understand what evaluation can contribute to the making of policy, one must understand its limited role in affecting decisions that are largely shaped by other forces. In any political decision, many parties with diverse interests are likely to have a stake, and evaluators are often asked to respond to several audiences and competing constituencies. Even though evaluations are frequently conducted at the behest of governmental authorities making decisions about programs, other audiences will respond to evaluation information as well and use or not use it as it furthers their objectives. Different audiences have need for different types of information; different policy issues require different types of studies. Unless the policy questions to be addressed are clear to those who ask for evaluations and to those who carry them out, the perception that much evaluation work is irrelevant to the policy process is likely to persist.

The diversity of research activities all going under the general name of evaluation has led to considerable misunderstanding. The diversity has come about because it has become evident that studying the effectiveness of

operating programs--the traditional focus of evaluation--does not answer some important questions; research is also needed in planning and implementing programs. During the planning phase, there are questions of need and how to meet those needs. Survey and ethnographic studies can establish the extent and distribution of an educational problem; controlled pilot testing and field tests can determine the effectiveness and feasibility of alternative interventions for relieving the problem; and economic analyses can be used to make cost estimates. Once a program is established and operating, there are questions of fiscal and coverage accountability. Analyses of administrative records can determine whether funds are being used properly and whether the program is reaching the intended beneficiaries, although supplementary fiscal audits and beneficiary studies are sometimes required. Finding out whether the program is being implemented appropriately requires, in addition to program administrative records, special surveys of program services and ethnographic studies. Finally, there are questions of program impact; they can be addressed definitively only through rigorous and often costly research methods. Consequently impact evaluation should be undertaken only if the requisite skills and resources are available.

Not all programs can be fully evaluated: that is, not all questions can be answered for all programs. In particular, meaningful impact evaluation is possible only for programs for which intended beneficiaries and effects can be clearly specified. There are two kinds of programs for which such specification is extremely difficult or impossible. For a program having vague goals or many diverse goals, evaluators and those who commission an evaluation must be able to agree on which goal should be assessed and whether appropriate measures are available to assess it. For a program in which local sites are given autonomy to develop their own specific objectives and means of reaching them, one cannot evaluate for national impact by aggregating effects over many diverse sites (though the effectiveness of individual local projects may be evaluated). General judgments about a national program become possible over time, however, as knowledge from studies of individual sites accumulates.

In an effort to increase the quality of information furnished through local evaluations, Congress has sought to encourage uniformity of methods and measurements in

evaluation. At this time, the Committee does not consider such uniformity an appropriate means for controlling quality, since requiring uniformity may prematurely inhibit further advances in methodology. Instead, evaluation methods should be subjected to the full test of the intellectual marketplace through intensive review and critique.

Improving the Quality of Evaluations

The few systematic or informal surveys of evaluation studies in education give some credence to the frequently voiced dissatisfaction with the general level of their quality. There appear to be several reasons that the quality of evaluations in education has been found wanting. First, the unrealistic expectation that complicated evaluation issues can be addressed by a wide variety of agencies has led to some inappropriate assignments of evaluation responsibility. For example, only a few large and sophisticated school systems and a handful of states have the capacity to carry out rigorous studies of program impact. In addition, the objectivity that is necessary for good evaluation is sometimes compromised at the state and local levels because much of the evaluation funding, though supplied by the federal government, is controlled by local program managers or state administrators. Evaluation requirements imposed on local and state authorities should match their capabilities, and fiscal and organizational arrangements should foster the integrity of local and state studies.

A second reason for the low quality of evaluations arises from the way in which federal evaluation activities in education are managed. Although the amount of money spent on evaluation represents only about 0.5 percent of the total federal support for education, it is a major source of income for private-sector research firms; moreover, evaluation work is heavily concentrated among the larger of those firms. This concentration has come about because of the current procedures for sponsoring and carrying out evaluations. Procurement documents are highly complex and often include detailed specifications on the various technical aspects of evaluation. Internal planning procedures and design of requests for proposals (RFPs) take so long that little time is left for response. Universities, minority firms, and small businesses, unlike large firms, are unable or

unwilling to compete under such conditions. The lack of diversity among evaluation contractors reduces the possibility of new ideas entering the evaluation system and thereby improving it. Perspectives of beneficiary populations, in particular, are underrepresented on both the sponsor and the performer sides.

Flexibility in evaluation, which could contribute to quality, has also been reduced because of emphasis in the past on large studies. The restrictions on creativity imposed by this approach are aggravated when a single individual or small group within the Department develops the main procurement instrument, as is usually the case. An additional constraint on flexibility and creativity is the current monitoring process, which makes it difficult to adjust the course of a study because of changed field conditions or because a different research direction is warranted.

A third explanation for problems of quality is that the intellectual marketplace for appraisal and scrutiny of evaluations has yet to be fully formed. Generally, there is no review by outside experts during the procurement phase when the main elements of a study are being designed; the lack of diversity among competitors for evaluation work further inhibits opportunities for the marketplace to operate; and, upon completion of a study, external review of final reports happens only sporadically. Institutional mechanisms for encouraging ample discussion by experts and parties at interest of plans for and findings of major studies are spotty at the federal level; they are largely absent at the state and local levels.

Using the Results of Evaluation

A frequently voiced criticism of evaluation is that evaluation findings are seldom used. Implicit in this criticism is the notion that utilization means direct and often immediate changes in policy and program. In fact, there are several different types of utilization, not all immediately apparent. Moreover, the dissemination of findings does not automatically lead to utilization, nor is utilization synonymous with change.

Evaluation findings may be used for making specific changes at a given time, as commonly envisaged in discussions of utilization. Findings may also be used to confirm that changes are not needed. But information may

also be considered and not used because it is inappropriate or because the indicated directions for policy are infeasible. Moreover, even when there is no immediately discernible use of knowledge derived from evaluations, it cumulates over time and is slowly absorbed, eventually leading to changes in concepts and decision perspectives.

There are important limits to the use of evaluation results in the short run. Social problem solving is and ought to be a political process; the forces and events impinging on decisions about programs are often more powerful than empirically derived evidence. The environment in which decisions are made seldom permits swift and unilateral action; new information may actually slow down the process, since it may make decisions more complicated. For these reasons, while evaluators and sponsors should do their best to disseminate evaluation findings, they cannot ensure utilization.

Dissemination can be improved in a number of ways, however. At the very least, evaluation results must be communicated to the primary audience. Copies of reports must be available: primary data should be accessible for reanalysis. Unfortunately, none of these minimal dissemination steps is now routine. Assuming that information is made available, other important factors affecting its use include whether it is perceived to be objective and whether it is structured and reported in a way that is relevant to potential users. Timeliness is also important, particularly when direct application to specific decisions is intended.

Because evaluation results are more likely to be used when they address issues of importance to specific audiences, concern with the use of evaluation findings cannot begin when final reports are ready to be disseminated. The primary audience and its information needs of a given evaluation should be identified at the inception of the study. Such initial identification will help define the type of evaluation to be undertaken, the issues to be addressed, the sort of information to be collected, and the form of reporting and communication that is likely to be most effective. The language of evaluation reports is often a barrier to use: reports must be intelligible to the intended audience(s) and should be augmented by more informal means of communication, including person-to-person interpretation of results. Linking mechanisms that mediate between researcher and audience can facilitate the spread of knowledge and the utilization process.

Organizing and Managing Evaluation Activities

The Department of Education has accountability and oversight responsibilities with regard to federal education programs and must carry out evaluation activities that address those responsibilities. The Department should also develop knowledge about programs that can be used to improve both their management and their contribution to more effective education. Finally, the Department should be able to formulate new programs based on tested alternatives that speak to unmet needs in education.

At present, evaluation responsibilities are assigned to several different units within the Department, and to state and local agencies. Fiscal audits and investigations on compliance with civil rights laws are appropriately carried out by offices created specifically for these functions. Similarly, local and state agencies are appropriately responsible for supplying fiscal and beneficiary information needed to administer federal programs. However, the assignment of other types of evaluation responsibilities among levels of government and within the Department varies remarkably from program to program, despite the existence of a central evaluation unit.

Though some decentralization of activities is appropriate, assignment of responsibilities should be on a more systematic and purposeful basis. The Committee suggests the following guidelines:

- Collection of information on beneficiaries served and on allocation of resources should continue to be a requirement for state and local agencies. When agencies do not have adequate capability for accurate reporting, technical assistance ought to be provided. An important caveat is that reporting requirements should not generate more information than can be digested at the level (federal or state) receiving the reports. No requirement should be imposed on all state and local agencies that goes beyond the basic reporting needed for accountability functions, such as studies of program effects and cost-effectiveness analyses. Such studies should be done on a national sample basis or by selected local or state agencies of proven competence and with sufficient resources.

• The Inspector General should continue to have responsibility for fiscal audits. Coverage of beneficiaries and program delivery should be monitored by the officials who administer programs at the federal level, but the central evaluation unit should, from time to time, run independent studies as checks. As its major responsibilities, the central evaluation unit should, in cooperation with the program units, carry out studies to establish whether and how specific programs can be evaluated, sponsor documentation of program process and implementation, and support studies aimed at the improvement of existing programs or the development of new ones. The research office of the Department should help administer grant programs for evaluation studies and support research on the methods and processes of evaluation.

Decentralizing evaluation responsibilities to any degree creates the problem of how evaluation dollars can be used effectively when they are dispersed among three levels of government and among many of the Department's units. First, adequate reporting of evaluation activities and expenditures must be instituted at all levels and for all units. Second, the central evaluation unit should be responsible for the coordination of evaluation throughout the Department, particularly with respect to planning and reporting procedures. The unit should also provide technical assistance and review for the design and procurement of individual studies done by other units, and it should be responsible for a systematic process of review of interim and final reports by inside and outside experts. A special dissemination branch within the central unit should help other offices with dissemination of findings from evaluation studies.

The central evaluation unit will not be able to carry out effectively the suggested evaluation and coordination responsibilities as long as it is subsumed within the management arm of the Department. The implicit message of this organization is that only the management perspective of evaluation is important. The Committee believes that evaluation must address the substance of policies and programs, not only their management. Therefore, administrative arrangements should be changed so as to give top decision makers within the Department more direct access to the central evaluation unit.

RECOMMENDATIONS

The Committee has two sets of recommendations, one for Congress and one for the Department. The recommendations are presented and the discussion of them summarized in the following two sections; the chapter numbers in parentheses indicate where the more detailed discussions are found.

Recommendations to Congress

The first recommendation to Congress is concerned with obtaining a better match between the information that results from evaluation studies and the information that is useful in making decisions about programs. The next three recommendations, C-2, C-3, and C-4, are intended to improve oversight and accountability for evaluations carried out with funds from federal education programs. The last recommendation to Congress addresses management constraints external to the Department.

Recommendation C-1. When Congress requests evaluations, it should identify the kind of question(s) to be addressed. (Chapter 2)

Given the diversity of evaluation activities misunderstandings about what information is needed have frequently arisen between Congress and the Department and its evaluation contractors. Congress should attempt to make more explicit whether it needs information about program services, about program coverage, about program impact, or about other program aspects. Such clarity will make it more likely that useful information will be delivered as a result of an evaluation effort. The primary audience(s) for the results of the requested evaluations should also be identified, since different audiences need different types of information.

Clarity of congressional intent can be brought about in two ways. When specificity about questions and audiences is not possible ahead of time, evaluation staff within the Department need to engage in a continuing dialogue with members of Congress and their staffs to refine the policy issues to be addressed. Alternatively, legislative language can specify such issues when Congress wants specific information. Legislative

language regarding evaluation should refrain, however, from specifying details of research method (such as sampling procedure or use of control groups) or of measurement. The choice of methods depends in part on specific evaluation conditions and contexts and should be done by technical experts only after careful consideration of all facets of an evaluation.

Recommendation C-2. Congress should separate funding for evaluations conducted at the state and local levels from program and administrative funds. (Chapter 3)

Under present circumstances, the amount of money invested and the kind of evaluation done at the state and local levels is, in too many instances, controlled by those who administer and run programs. This puts the quality and integrity of state and local evaluation activities in jeopardy. Moreover, the current arrangement makes it impossible to know how much of the federal funds potentially available for evaluation are actually used for that purpose. Congress may also wish to consider a percentage set-aside for evaluation of programs at the state and local levels, as is now legislated for a number of programs at the national level.

Recommendation C-3. Congress should institute a diversified strategy of evaluation at the state and local levels that would impose minimum monitoring and compliance requirements on all agencies receiving federal funds but allow only the most competent to carry out complex evaluation tasks. (Chapter 3)

All state and local agencies receiving federal funds for education programs should be required to provide an accounting of the distribution of funds and of beneficiary coverage for each program. When specific services and procedures are mandated, these should also be subject to reports to ensure compliance. The Congress should require the Department to institute appropriate quality control procedures to raise the quality of state and local data. Evaluation tasks that go beyond accountability questions, however, should only be required of state and local units on a highly selective basis. Congress may wish to consider authorizing a competitive grants program, possibly administered through

the National Institute of Education, for school systems and states that would provide for funding a few of the most technically promising proposals for impact assessments of local programs or for program improvement based on evaluation of alternative program strategies.

Recommendation C-4. Congress should require an annual report from the Department of Education on all evaluation expenditures and activities. (Chapter 3)

The annual evaluation report currently required from the Department should be expanded to cover all federally funded evaluation activities in education, including all of those in the Department as well as those carried out by state and local agencies. Expenditures at all levels should be specified; activities, findings, and their use should be briefly described.

Recommendation C-5. Congress should authorize a study group to analyze the combined effects of the legislative provisions and executive regulations that control federally funded applied research. (Chapter 5)

One of the causes of the lack of timeliness and relevance of evaluation studies is the accumulation of rules and regulations governing the whole process of funding and carrying out applied research in the social service area. While almost every provision now on the books or enforced through executive practice is there to provide some safeguard and may be reasonable when considered in isolation, in the aggregate they have negative effects. The trade-offs between the benefits of the safeguards and the obstacles they create against producing timely and relevant applied research at reasonable cost deserve careful scrutiny. Simplification and reform may be in order.

Recommendations to the Department of Education

The recommendations to the Department concentrate on management issues for two reasons. First, as noted, we believe that the quality of evaluations could be considerably improved and the use of evaluation findings increased through better management procedures. Second,

the Department has the power to change many of its current operating procedures, while it may be able to do relatively little about such external constraints as the development of the evaluation field, the size of its budget, or agency personnel ceilings. The recommendations on procedures are organized into those intended to develop better strategies for overall evaluation planning within the Department and for planning individual studies; those intended to increase the quality of evaluations, including three on training and technical assistance; and those intended to facilitate use. The last three recommendations speak to improvements needed in general management procedures.

On Evaluation Strategy

Recommendation D-1. In evaluations initiated by the Department of Education, the kinds of evaluation activities to be carried out should be specified clearly and should be justified in terms of program development or program implementation. (Chapter 2)

This recommendation is analogous to Recommendation C-1 to Congress. It emphasizes the need to think through what type of evaluation activity is appropriate to any given stage of planning or implementation of a proposed program or an existing program. For example, top-level Department officials need to specify what they wish to know about a program, why they wish to know it at some specified time, and what audiences other than themselves have information needs that must be satisfied through evaluation activities. All these needs must be coordinated with legislated requests for evaluation. (See also Recommendation D-10 on planning.)

Recommendation D-2. When pilot tests of proposed major programs are conducted, pilot tests of evaluation requirements should be conducted simultaneously to determine their feasibility and appropriateness. (Chapter 2)

While pilot tests of a program are being made, it is a relatively easy matter to pilot-test the proposed evaluation. Such a pilot test can be used to find out what measurements can and cannot be made of program

benefits, how programs should account for and measure costs, which testing instruments and procedures are disruptive and which are not, how large a sample of beneficiaries is needed to get valid program measurements, and so forth. If a pilot test of an evaluation were carried out in conjunction with the pilot test of a program, the design of both the program and of the evaluation requirements would be strengthened.

Recommendation D-3. The National Institute of Education should continue and strengthen its program of support for research in evaluation methods and processes. (Chapter 2)

The advances made in the technical aspects of evaluation have been considerable, but uneven. The Committee believes that too much attention has been given to investigating problems in the use of randomized controlled experiments. Other important problems in methodology have not received sufficient attention, for example, methods for studying the delivery of services, for investigating the properties of achievement tests when used in the evaluation of programs, and for assessing the impact of programs that cannot be studied through the usual experimental paradigms. Another neglected area of research is the process of evaluation itself: how studies are commissioned and initiated, how they are managed, what laws and procedures impinge upon them. The Committee's work indicates that current procedures constrain the quality and the use of evaluations, but how these processes operate is poorly understood; therefore, it is difficult to design effective remedies.

On Quality, Training, and Technical Assistance

Recommendation D-4. The Department of Education should provide funds for training programs in evaluation to increase the skills of individuals currently charged with carrying out or using evaluations and to increase the participation of minorities. (Chapter 3)

The field of evaluation has grown more rapidly than the pool of skilled evaluators. As a consequence, there are many people working as evaluators whose training has been haphazard and inadvertent and who may not be fully

familiar with more recent advances in techniques and methods. Others may lack adequate knowledge of the educational system or of the special needs of the groups to be helped by federal education programs.

A primary training need concerns the underrepresentation of minority group members in the educational evaluation enterprise. Well over half of all education programs target minority group persons as recipients of services. The Committee believes that the quality of evaluation would be improved by the employment of minority persons who are also well trained technically. For example, intimate personal knowledge of the circumstances of beneficiaries will help to define outcome measures that are more relevant to beneficiaries and more closely related to improving the effectiveness of programs. Hence, we believe that such perspectives should be represented to the fullest extent possible in the evaluation of such programs. Fellowships and internship programs in evaluation that include specific priorities for minority group persons would be doubly valuable; they would produce good researchers and they would enrich the evaluation system.

A second concern related to training is the relationship between the evaluator and the administrator or educator. The communication gap between the two that inhibits the use of evaluation may be narrowed by appropriate training on both sides. Executives and program staff would benefit from greater knowledge of the language of evaluation and how evaluation might be used; evaluators need exposure to the problems, procedures, and constraints of federal education programs. Evaluators also need to improve interpersonal and communications skills in order to convey evaluation information effectively.

Technical training for evaluation staff is also necessary, both within the federal government and at the state and local levels. There have never been sufficient numbers of staff trained in either rigorous evaluation methods or in research, and there have been rapid developments in the field. Evaluation is currently practiced by those from almost every type of background possible, including many with no more preparation than that of classroom teaching. Practicing evaluators need opportunities to upgrade and improve their skills. As one way of meeting this need, the Department should consider funding short-term institutes and conferences providing up-to-date knowledge to the evaluation

community. (See also Recommendation D-17 on training opportunities for federal staff.)

Recommendation D-5. The Department of Education should structure the procurement and funding procedures for evaluations so as to permit more creative evaluation work by opening up the process and allowing a period for exploratory research. (Chapter 3)

The more complex the evaluation, the less likely is it that one can spell out ahead of time the best methods for addressing the questions that the evaluation is designed to answer. The current RFP process in particular ignores this fact. The Committee believes that the RFP process can be made more flexible. RFPs for large studies should include a period of exploratory research; they should also provide for side studies that address questions integral to the evaluation that emerge after it is under way. Proposers should be given the freedom to specify alternative methods and to suggest side studies. Most important, sufficient time for developing proposals must be allowed.

Mechanisms other than RFPs for funding evaluations can also be used to open up the system. For example, unsolicited and solicited proposals, 8-A contracting, cooperative agreements, basic ordering agreements, and grant awards are each appropriate to given evaluation tasks. The Committee's recommendation that a greater variety of funding methods be employed does not imply that the use of RFPs be drastically reduced. Flexibility in the award process, we believe, will permit the introduction of new ideas that may contribute to higher-quality evaluations. Flexibility will also allow greater participation by minority organizations and researchers.

Recommendation D-6. All major national evaluations should be reviewed by independent groups at the design, award, and final report stages. Review groups should include representatives of minorities and other consumers as well as technical experts. The results of their review should be made broadly available. (Chapter 3)

This recommendation also is intended to open up the process. There are three facets to it: improving the

technical quality of evaluations, assuring early contribution and involvement from those most affected by programs (beneficiary groups, teachers, etc.), and making use of findings more likely through public exposure and understanding.

When the RFP process is used, the agency itself should solicit as much outside advice as possible, through development of concept papers, planning conferences, and other pre-RFP activities. Proposal evaluation and selection procedures should include experts from outside the sponsoring agency. After award of a contract, the contractor also should solicit the views of outsiders. Then, when the project is done, outsiders should again review the work, its assumptions, its technical ambiguities, and its policy implications. Reviews of completed work should be widely disseminated in order to encourage discussions of the findings. The Department might sponsor an annual conference on important evaluations that are at various points--design, completion of final report, reanalysis. If this were done, the educational community would know where to look for the latest evaluation results and criticisms and be apprised of impending work.

Recommendation D-7. All statistical data generated by major evaluations should be made readily available for independent analysis after identifying information on individual respondents has been deleted. (Chapter 3)

When possible, ethnographic data and case study material, similarly treated to protect privacy and confidentiality, should also be made available.

Making primary data from evaluations available will require support in major evaluation contracts for documentation, storage, and dissemination of data and the creation of explicit agency policy on access to data. Since the objective is to generate adequate examination of the methods and findings of major evaluation studies, independent review and reanalysis should be supported by the Department as part of its evaluation and research programs.

Recommendation D-8. The Department of Education should explore alternative approaches to technical assistance for state and local evaluation needs. (Chapter 3)

The technical assistance needs of state and local agencies are not uniform. They vary with the size of the agency, the sophistication of the agency's evaluation staff, and with the complexity of the federal program activity in the agency. The technical assistance centers associated with Title I are one approach to meeting such needs. Another approach would be to identify or fund exemplary models of monitoring and reporting and to disseminate the procedures involved. A third approach would be to develop the capability of state agencies to provide technical assistance to less sophisticated local agencies.

Technical assistance should also cover organizational and personnel issues. In particular, state and local agencies need to be aware of the desirability of separating an evaluation unit from program administration in order to avoid conflicts of interest. Work already done by some state and local agencies on optimal institutional arrangements, personnel requirements, and procurement policies for extramural work can form the basis of advice and assistance to others. (See also Recommendation D-16 on minimum requirements for monitoring and compliance reporting.)

On Utilization

Recommendation D-9. The Department of Education should test various mechanisms for providing linkage between evaluators and potential users. (Chapter 4)

The Department should consider establishing a unit charged with studying, developing, and instituting knowledge transfer mechanisms and evaluating their effectiveness. Alternatively, outside experts might be charged with this responsibility. Appropriate activities would include assessing proposed dissemination plans, performing needed translations of evaluation reports, funding research on the communication and use of evaluation information, and developing procedures designed to improve the day-to-day use of evaluation data, at least within the Department.

Recommendation D-10. The Department of Education should institute a flexible planning system for evaluations of federal education programs. (Chapter 4)

A workable planning system must provide for appropriate information to be available for recurring legislative decision cycles on education programs; it must accommodate an ongoing program of evaluation studies addressing problems that are poorly understood, and it must be sufficiently flexible to allow response to interesting but unanticipated questions that arise as a result of ongoing research, changes in policy, or development of new programs. The evaluation plan for any major education program should contain a series of linked studies, some of which furnish factual information in reasonably short time and some of which address issues of long-term interest.

Although planning does not necessarily lead to an agenda that is subsequently carried out in detail, planning almost always leads to an improved sense of priorities, provides a forum in which competing interests can reach accommodations, and induces an active as opposed to a reactive stance toward essential activities.

Recommendation D-11. The Department of Education should establish a quick-response capability to address critical but unanticipated evaluation questions. (Chapter 4)

In order to be fully responsive to the information needs of its primary audiences, the Department must be able to combine a deliberative planning process that allows time for field and constituency involvement with a quick-response capability that can address unanticipated but critical evaluation questions as they arise. Department staff charged with evaluation responsibilities should be able to respond within 2-6 months to evaluation-related questions to which Congress or top-level Department officials seek prompt answers. Several extramural mechanisms are available for this purpose, for example, maintaining lists of prequalified contractors who can be given specific task orders on short notice or using 8-A contracts and awards to SBA-eligible firms.

Recommendation D-12. The Department of Education should ensure that evaluations deal with topics that are relevant to the likely users. (Chapter 4)

In order to increase the relevance of evaluation results, primary audience(s) must be specified prior to the beginning of a study. When conditions change during the course of a study that might affect the usability of the findings, study objectives and design should be reconsidered to ensure that the study will remain relevant. Efforts should be made to deliver reports on time, especially when study results are intended for decisions that are made at specified times.

Recommendation D-13. The Department of Education should ensure that dissemination of evaluation results achieves adequate coverage. (Chapter 4)

All RFPs and grant announcements should include requirements for a dissemination plan oriented toward utilization, and proposal evaluation should give appropriate weight to the quality of the proposed dissemination plan. Dissemination plans should include specification of audiences and their information needs, strategies for reaching the audiences, provision for an adequate number of report copies and other materials, and mechanisms for adapting the dissemination plan as the study proceeds. Budget negotiations should recognize that adequate dissemination is costly and cannot be an afterthought.

Recommendation D-14. The Department of Education should observe the rights of any parties at interest and the public in general to information generated about public programs. (Chapter 4)

Findings from evaluations must be made available to those who are importantly affected by the programs being evaluated, including those who manage them, those who provide program services, and those who are intended to benefit (or their representatives). Since evaluations are paid for with public funds, they should also be made available to the public at large. The Committee is aware of the dangers in providing too much autonomy to evaluation units and contractors, but public interest

needs suggest that, at the dissemination stage, evaluators should be guaranteed a certain degree of autonomy. Appropriate changes should be made in contract provisions to allow contractors and grantees the necessary flexibility with regard to distribution of reports and other dissemination strategies.

Recommendation D-15. The Department of Education should give attention to the identification of "right-to-know" user audiences and develop strategies to meet their information needs. (Chapter 4)

Perhaps the most neglected audience for evaluation studies consists of program beneficiaries and their representatives. We believe that this neglect is not so much intentional as it is produced by the very real difficulties of defining this set of audiences in a reasonable way. In order to more closely approximate the ideal that all those having a recognized interest in a program should have reasonable access to evaluation results, the Department should consider dissemination of evaluation reports freely to groups and organizations that claim to represent major classes of beneficiaries of education programs. Positive, active dissemination to such right-to-know groups may include such specific activities as ascertaining their information needs prior to evaluation design and during the evaluation, preparing standard lists of groups and organizations to whom evaluation results are routinely disseminated, and seeking out comments and critiques of evaluation reports. Since it is to be expected that such right-to-know groups will be different for different evaluations, careful consideration of the appropriate right-to-know groups should be part of the dissemination plans that contractors are asked to prepare as part of their response to RFPs and grant announcements.

On General Management

Recommendation D-16. The Department of Education should clearly spell out minimum requirements for monitoring and compliance reporting and set standards for meeting the requirements. (Chapter 5)

Such data items as distribution of funds, number and types of beneficiaries being served, and specific program services should be defined by the Department so that local and state agencies will know exactly what reporting is required of them. Quality control procedures should be enforced so that adequate performance reports can be made to Congress. Before setting the requirements, however, the Department needs to examine its own capacity to deal with local and state reports in order to avoid collecting information that is never used because of the sheer inability of federal staff to deal with the volume of reports. The objective of this recommendation is to improve the quality of data needed for accountability without increasing the burden of response on local and state agencies. To accomplish both ends, admittedly somewhat difficult to reconcile, the Department should consider appropriate development research on what kinds of procedures would minimize response burden and at the same time ensure sufficient data quality.

Recommendation D-17. The Department of Education should examine staff deployment and should establish training opportunities for federal staff responsible for evaluation activities or for implementation of evaluation findings. (Chapter 5)

The Department should consider alternative ways of using the technical staff within the central unit and the evaluation staff in other units. The greater the degree of government involvement in an activity, the greater the skills and the greater the number of personnel required: grants and consultancies entail the least involvement, contracts and evaluation teams configured of government staff and outside experts more, and in-house studies the most. The Department should examine the number and types of positions assigned in light of responsibilities and workload. It should also examine the academic and experience background of personnel charged with evaluation responsibilities. Such personnel should be

well grounded in the theory and methodology of relevant social science disciplines; they should be aware of the perspectives of the various parties at interest; and they should have practical program knowledge. Suitable training programs should be made available to prepare staff members adequately for their tasks.

Recommendation D-18. The Department of Education should take steps to simplify procedures for procuring evaluation studies, carrying them out, and disseminating their findings. (Chapter 5)

The Committee is aware that our recommendations for opening up the system and for involving minority groups and other parties at interest during various phases will complicate and prolong the evaluation process. However, we firmly believe that this can be more than compensated for by simplifying and improving internal management procedures now used by the Department.

The procurement process has become not only restrictive and inflexible but very costly in internal staff time and to proposers, though the cost to proposers is recouped eventually through overhead and in other ways, so that the government bears the double burden. Other sources of delay, once a contract or grant for a study has been awarded, must also be identified and addressed. This applies particularly to clearance procedures and to monitor and agency handling of requests for changes in study design, sampling procedures, testing, analysis, time frame, and the like. The Department should consider sanctions and incentives to encourage timely performance, and it should hold itself responsible for timely dissemination.

Our call for timely performance on studies that are intended to feed into a specific legislative or management decision in no way invalidates the need for a more deliberative approach in certain cases. There are times, especially when an effort is being made to remedy a problem that is little understood, when it is more important to promote a variety of studies that explore emerging leads than to mount a formal study designed to provide a definitive answer by a specified date. Even in such cases, however, the pace should be set by the research process and concerns for its quality rather than by overly cumbersome management procedures.

1
Introduction

BACKGROUND

In the broadest sense, evaluation has always been done. In its more narrow modern usage, "evaluation" has come to mean the use of recently developed research tools and concepts of the social sciences to develop evaluation knowledge. What has social-science-based evaluation contributed to education? Two examples, one of national scope, the other local, illustrate how such evaluations illuminate and sometimes contradict judgments derived in other ways; they thus increase knowledge about what affects the educational process and how it in turn may affect educational and social goals.

In 1959 James B. Conant published his widely read report on the American high school, recommending, among other things, the consolidation of small high schools into large comprehensive schools and an increased emphasis on English composition, mathematics, and science. His report, based on visits to several dozen high schools, was essentially the application of his judgment as an experienced educator to what he saw as typical practice in better schools in comparison with less adequate schools. He concluded that, in the better schools, students were learning more because the curriculum offered to them was better, there was a wider variety of courses, teachers were better, facilities were better, the counseling was better, and so on through a list of characteristics generally associated with comprehensive high schools. Hence, Conant concluded that such schools contributed to the learning achieved by high school students. Whatever influence Conant's report had

on American education, it was certainly widely read and discussed at the time. Undoubtedly, the report hastened the process of school district consolidation that was already under way and helped the emphasis on academic achievement that was also aided by the Sputnik accomplishments of the Russians during the same era.

In a broad sense of the word, Conant's volume constituted an evaluation of our school system; however, it was not an evaluation in the sense used in this report because the means by which Conant came to his recommendations were not based on the concepts and tools of social science. He generalized what he found to all schools even though there was no evidence that the schools he studied fairly represented all American high schools. Nor did he collect information on the schools and students in a sufficiently structured way to allow replication by other observers. In short, Conant and his colleagues did not follow the procedures of ethnography, sample surveys, or experimenters: the procedures used were essentially those of high-level journalism. But, most important of all, Conant's observations were not social science because he did not consider alternative explanations for differences in quality among the more than 100 schools that he and his collaborators visited. Were his "better schools" better because of their curricula, staff, and amount of per-capita student support, or were they better for some other reason?

In contrast, the later work by James S. Coleman and his associates (1966) is clearly an evaluation in the social science sense. His sample of 459 high schools and 959 feeder elementary and junior high schools was chosen by probability methods to represent fairly the (then) 21,000 high schools in the United States. Achievement tests were used to measure the learning of large samples of thousands of students selected from various grade levels within the sample schools. In addition, principals and teachers were queried about their own professional preparation and about the relevant facilities available within each school, such as library size, physical education facilities, and age and size of buildings.

While there were clearly some high schools that appeared to be fostering higher levels of academic achievement among their students, Coleman also considered alternative explanations for school differences, among which the most important were family background and community differences among students. His analysis

showed that characteristics of schools, teachers, or principals counted very little in comparison with family background. Indeed, the major difference between schools was accounted for by the differences in the mixes of students from various backgrounds, with school facilities and financial expenditures also counting for very little. This finding profoundly shocked the field of education. The main policy implication of the finding was that changing the academic achievement of children through changing the schools was not going to be an easy job entailing merely changes in curricula, upgrading of teachers, or providing more financial support to the schools.

The importance of testing alternative explanations is shown as dramatically in a recent study (Robertson 1980) of the effect of dropping driver education from the curricula of some Connecticut high schools. In 1976, the Connecticut state legislature decided to discontinue subsidizing driver education in the state's high schools. In response, some of the high schools dropped driver education entirely from the curriculum while some retained it, financing the classes from local funds. Robertson tested the impact of this change on automobile accidents involving young persons aged 16 and 17 by comparing the number of accidents in counties in which driver education was retained with counties in which it had been dropped. He noted that over a 2-year period, the number of accidents involving persons aged 16 and 17 declined drastically in the communities that had dropped the course.

It would have been easy to conclude that driver education was not efficacious in training careful drivers, or even that it produced more reckless drivers, but Robertson tested a number of reasonable alternative explanations. The most plausible of these alternatives was indicated by a drop in the number of drivers aged 16 and 17 in those communities that dropped driver education. In short, in communities in which driver education was part of the curriculum, young people received their driver's licenses at an earlier age and hence, there were simply more people aged 16 and 17 who drove. If driver education courses do not lead to a reduction in the number of accidents for 16- and 17-year-olds, it is not because they are not educationally effective (we cannot draw conclusions about this one way or another from Connecticut's natural experiment), but because they encourage more people of that age to get licenses.

Since Coleman's landmark work, demand for evaluation has been increasing, in part because the last 15 years have seen a burgeoning of public programs funded and managed through the federal government. The intent of such programs has been to alleviate a wide variety of societal problems, from unemployment to low reading scores of some children in public schools, from substandard housing to recidivism of felons, from drug addiction to the inadequacies and inequities of the health care system. But as a number of the programs failed to live up to the expectations that accompanied their creation, even as their costs escalated, questions were raised as to the reasons for the disappointing performance. In response, federal agencies have sponsored and conducted a diversity of evaluation activities, obligating nearly a quarter of a billion dollars for that purpose in fiscal 1977 and investing more than 2,000 staff years on the part of permanent federal evaluation staff (Office of Management and Budget 1977).

Nowhere has the growth of programs accompanied by the growth of evaluation been more pronounced than in the field of education. The federal part of public school income grew from 4.3 percent in 1962 to 8.5 percent in 1974, from $1.6 billion to $6.6 billion (in constant 1977-78 dollars). The most rapid increase came in the mid-1960s; by 1966 the federal contribution stood at 7.9 percent, close to the current level (Dearman and Plisko 1979). The increase was largely the result of the landmark Elementary and Secondary Education Act (ESEA) of 1965 (reauthorized and added to several times since, most recently in 1978), which mandated a number of federally funded programs to improve the school performance of disadvantaged children. Title I, which supports compensatory education for poor children, was, and continues to be, the keystone program of this legislation. To date, more than $26 billion in federal funds has gone to state agencies and local school systems under Title I (Kirst and Jung 1980).

Evaluation activities lagged a few years behind, though the first legislative requirement for evaluation was built into the original Title I legislation. By the time the program was 7 years old, more than $50 million had been spent to evaluate it (McLaughlin 1975). Current federal investment in evaluation of education programs totals some $40 million a year (see Appendix A), not including federal funds spent for evaluation at the state

and local levels. The objectives of the evaluations have been to establish whether programs are in conformance with legislative provisions, whether programs are managed effectively, and whether programs are achieving the desired goals. It was assumed that evaluation would answer these questions and, moreover, provide information that could be used to remedy identified deficiencies.

But achieving evaluations that yield answers has been as elusive as achieving successful programs. Early evaluations faced technical problems and failed to anticipate the highly politicized context that surrounded the programs being evaluated. As evaluators learned to cope with some of the early problems, more evaluations were funded, and in 1970 the Office of Education (OE) established a central evaluation unit (see Appendix A) and placed at its head an evaluator of some stature. But criticism has not abated. Those who sponsor evaluations or are in a position to use them continue to voice their disappointment, often finding results irrelevant or not delivered in time for making decisions on programs.

Because of the theoretical and technical problems and because of questions on its contribution to formulating social policy, the field of evaluation has been marked by a considerable amount of self-inspection. A large number of studies and books have been devoted to analyzing evaluation, gauging its effectiveness with respect to making policy decisions, developing improved methodology, and appraising the quality of individual studies. For example, a recent review of program evaluations (Boruch and Cordray 1980) cites more than 150 references devoted to critiques and analyses of individual studies or of the field in general; another recent comprehensive overview (Cronbach et al. 1980) cites nearly 200 such references. And both these works concentrate largely on the field of evaluation in education.

Many of the published articles and books include recommendations for improving evaluations and making them more effective. Yet as the field has grown and consumed a more visible share of resources, the number of questions on the quality and utility of evaluations has increased. The latest expression of dissatisfaction came from the Congress in 1978 with the reauthorization of ESEA (P.L. 95-561): it was a congressional demand for improvement in the methods, integrity, and uses of evaluations, which led the Office of Education to commission the present review of its evaluation activities by the Committee on Program Evaluation in Education.

AUDIENCES FOR THE REPORT

A critical issue for the Committee was to define the audiences for its report. We identified the major audiences as members of Congress and their staff and the senior executives within the new Department of Education for two reasons. First, these two groups had made specific complaints about the effectiveness of program evaluation and had asked for recommendations on improvement. Second, most of the literature assessing the field of evaluation is addressed to its practitioners, rather than to the sponsors and potential users of evaluations. In the Committee's view, the critical self-inspection that has characterized the evaluation field has been a mainspring of the development of this rather young branch of applied social science. While such criticism must continue to provide correctives to deficient theory and practice (and to be effective, must speak to its own specialist audiences), it will continue to miss the mark for those outside the circle of "experts"--the very individuals and groups who make decisions about social programs and who are in a position to commission and use evaluations. This report is primarily addressed to them, and our recommendations are for the legislators and the agency executives who seek to obtain greater effectiveness and use from investment in program evaluation in education.

In addition to our main audiences, we believe the report will also be of interest to several other audiences. One such audience includes state and local education authorities, who carry out evaluation activities with federal education funds. In some instances, our recommendations concern them directly; but even when this is not the case, they have a stake in how evaluations are commissioned and carried out at the federal level because the programs being evaluated are the responsibility of state and local agencies. Groups concerned with assuring that federal education programs meet the goals intended by the legislation are another audience. An improved evaluation system will provide information to carry out their oversight function more effectively. In particular, such information is critical to groups interested in furthering equal educational opportunity, the goal of most federal education programs and mandates. Lastly, though we have made no effort to address problems from their particular perspective, researchers involved in carrying out evaluations are an

audience for our recommendations since we intend those recommendations to have an impact on how evaluation is done and used.

SCOPE OF THE REPORT

Among researchers, the term "program evaluation" traditionally has been applied to the assessment of the impact of a given program. Generally, this has included answering two kinds of questions: To what degree have the changes intended by the program been achieved? To what extent can the observed changes be attributed to the program? Early in the Committee's proceedings, however, it became clear that this definition was too limited for our task and for the audiences of this report. In the pragmatic environment in which questions are framed about federal education programs, distinctions between outcome evaluations--those concerned with the above questions--and other types of assessment are frequently irrelevant. Congress and Department officials need to know how funds are allocated, what kinds of program services are being delivered to whom, how management of a program could be improved, what program alternatives are most effective, and which programs are most cost-efficient. In developing new programs or changing existing ones, questions must be answered about the nature and extent of the need to be met and about the effectiveness of proposed programs to meet that need. A considerable proportion of the funds allocated to evaluation of federal education programs goes to answer such questions, and even studies concerned mainly with program outcome include activities (and money) devoted to those other issues. From discussions with congressional and Departmental staff, it was evident that the dissatisfaction with evaluation encompasses perceived shortcomings in all areas and that focusing only on program evaluation as defined by the research community would not address the concerns of policy makers. Therefore, the Committee has chosen to be inclusive with respect to the domain of its inquiry. The terms "evaluation activities" and "evaluation," as used in this report, cover work undertaken to answer any type of assessment or planning question having to do with the allocation of benefits, the nature of services, the outcomes, or the management of an established or proposed program. But we have not given equal attention to each

type of evaluation activity; we have concentrated on those activities for which the methods of applied research can make the greatest contribution to policy formulation.

While the Committee has used an inclusive definition of evaluation, it has concentrated its attention on a limited number of issues, namely those of greatest interest to the primary audiences. Congressional concern with uniform methods and measures is addressed in Chapter 2 in the context of delineating different types of evaluation procedures and their appropriate use. Issues of integrity and independence are treated as part of the discussion in Chapter 3 of how the quality of evaluations can be improved. Follow-up on evaluations, the third issue stated explicitly in the congressional request that led to our study, is subsumed under the more general topic of the use of evaluation results, which is considered in Chapter 4. Finally, Chapter 5 responds to the specific request made by Department officials to provide recommendations on the organization and management of evaluations funded with federal education funds. The recommendations and suggestions in Chapter 5 also take account of implications for management and organization that derive from the discussions in the preceding chapters of evaluation procedures, evaluation quality, and the use of evaluation results.

The report documents some of the ways in which the evaluation system in education currently operates and the incentive structure implicit in its operation. The Committee makes a number of recommendations that, in our view, would improve the current system. We suspect that the effective implementation of the recommendations will have to take into account the incentives of legislators and upper-level managers in the Department as well as those of lower-level managers, contractors, and potential and actual beneficiaries. Time did not permit a thorough examination of how incentives might be restructured; instead, we have largely focused on recommendations that appear feasible within the present incentive system and that we think can produce improvements in the quality and usefulness of evaluations.

Some issues that are the subject of much debate within the evaluation community have been given only passing attention in the report, such as: the choice between quantitative and qualitative methods; the relationships between those who sponsor evaluations, those who carry them out, and those directly involved with the programs

being evaluated; and a number of technical matters relating to effective collection of data and appropriate analytical strategies. Deemphasis of such topics was not just a matter of lack of time; it reflects the Committee's view that those topics are less important to our main audiences and that (particularly in the case of technical issues) the Committee would find little new to add to the extensive literature in the field.

Four additional issues pervaded the discussions of the Committee, though they had not been identified specifically in the 1978 legislative provision calling for the assessment of OE's evaluation activities, by legislative staff interviewed, or by Department officials. Of these, the most important surfaced during the very first meeting, namely, how well evaluation activities address the broad federal mission of equal educational opportunity. To do so effectively requires the active participation in the whole evaluation process of minorities and other groups intended to benefit from federal education programs--from the planning and design of evaluations to their ultimate use. The inadequate consideration of the needs and viewpoints of the groups intended to benefit from programs affects the kinds of questions asked about programs, and insufficient information about the results of evaluations prevents such groups from knowing how to make programs more effective.

The second issue developed as the Committee pursued its questions about the current process of commissioning and carrying out evaluations in education. As a result of external regulations and constraints and internal procedures, the process operates so as to limit severely the flow of ideas and creativity that must be part of any effective research effort, including applied research such as program evaluation. The conditions that have led to this undesirable state admit of no easy remedy, but measures must be taken to open up the process if good evaluations are to be carried out. Opening up the process is also necessary in order to have greater involvement by minority researchers and organizations.

A third issue also bears on quality and equal opportunity, namely, the training of individuals involved in evaluation, either as performers or as users. The Committee is not advocating an expansion of the field of evaluation, but we are concerned that federal mandates for evaluation generated both by Congress and by the Department (and its predecessor) have forced individuals

with inadequate preparation into evaluation, particularly at the state and local levels. One remedy is to reexamine current evaluation requirements and reduce them where they are not warranted; a second is to provide training and technical assistance as necessary. Opportunities for training can also deal with the purported shortage of minority researchers and remedy specific shortcomings among federal evaluation and program staff.

A fourth issue became evident as the Committee reviewed the major themes and recommendations of the report. Unless the limitations of evaluation are clearly recognized, disappointment will continue. Ideally, evaluators are objective and accurate reporters who can provide and interpret detailed information about a program. In reality, they may be asked to act as judges or as support personnel, or they may be perceived as a necessary but unwelcome program disturbance. As judges, the verdicts of evaluators may be considered uninformed by program managers and clients when the evaluators come from outside the program and biased when they come from inside. As support personnel, their findings and advice may conflict with accepted assumptions, policies, and procedures. As researchers, the constraints on resources, on freedom to design evaluations, and on access to information may sharply limit their ability to investigate some critical questions. Evaluators often must negotiate with various parties at interest--the evaluation sponsors; the federal, state, and local program managers; teachers and principals; parents and students--providing some service of value to each in exchange for resources (a program manager's time, a sponsor's money) and cooperation. And even when an evaluation has proceeded successfully, the results must enter a communication stream that contains many other messages. Evaluation does not and cannot eliminate the need to manage controversy; at best, evaluators and their work serve to produce knowledge that can inform decisions about programs, decisions that must continue to be made through political and managerial processes.

Though the report is organized into chapters according to the topics of greatest concern to our two main audiences, the four issues of equal opportunity, opening up the process, training, and the role of evaluation are woven throughout the text of the chapters. We believe that addressing the first two of these issues is indispensable to increasing the effectiveness and

quality, as well as the uses of evaluations; recommendations relevant to these issues are made in several chapters. Recommendations on training and technical assistance appear in the two chapters dealing with the quality of evaluations and the organization and management of evaluation activities. As to the fourth issue, we hope we have been sufficiently sensitive throughout our work to both the importance and the limitations of the evaluator's role, even though constraints of time and space have precluded the full discussion that this issue deserves.

A question that surfaced several times during the Committee's deliberations concerned the appropriate size of the federal investment in evaluation relative to the federal investment in education programs themselves. Depending on what activities are included as evaluation, some 0.3 to 0.7 percent of total federal education funds are currently spent on evaluation. Several individual programs have legislatively established ceilings for evaluation activities sponsored at the national level (0.5 percent of program funds for ESEA Title I, 1 percent for Emergency School Aid Act programs), and there are provisions for the funding of state and local evaluations within some mandated set-asides for administrative expenditures. For large programs, a 0.5 percent set-aside for evaluation will yield a sizable pool of funds if invested at the national level, but it may be inadequate if parceled out at the individual school system level; for smaller programs, it may be reasonable to spend as much as 10 percent of total program funds (see Appendix C). Limited questions about accountability can be answered relatively inexpensively, but to try to answer complex questions with inadequately funded studies may turn out to be a waste of resources. The Committee considered current funding provisions and spending patterns and makes some recommendations regarding them, specifically that evaluation funding be separated from administrative costs and that complex and costly evaluations not be undertaken without adequate resources. But we do not see it as our role to determine the proper size of the total pool of funds to be devoted to evaluation. The allocation of resources between programs and their evaluation depends on the importance assigned to the flow of program funds to beneficiaries compared to the importance of gaining knowledge about the programs and accounting for their effects. This determination is largely a matter of political judgment.

Instead of attempting to determine whether the current level of spending on evaluation is too much, too little, or just right, the Committee has focused on how those funds that are allocated to evaluation can be spent more effectively and yield more useful results.

2
Defining Evaluation

THE ROLE OF EVALUATION

The literal meaning of the verb "to evaluate" is to estimate the value of some object or activity. As applied to education programs, evaluation includes the set of activities that are aimed at finding out how valuable a program may be. Relevant questions include: How serious is the condition that the program is designed to ameliorate? How is the program supposed to work? What would happen without the program? What would happen if the program were expanded? How valuable is the program compared to other programs?

Putting things this way makes it *very* difficult to question the value of evaluation. How can one be for <u>not knowing</u> the value of a program, its impact on this or that, or what would happen if it were altered? How can one favor making budgetary decisions in the absence of evaluation information of some sort? In short, how can one opt for ignorance over knowledge?

Although the need to know seems indisputable, controversy and struggles inevitably arise whenever social-science-based evaluations are done and reported. First, such evaluations make program goals explicit and thus may uncover previously hidden value disagreements. Second, they have to compete with other forms of evaluation--ad hoc opinions, skillful journalistic reporting, intuitive perceptions, and so on. Third, the evaluation process is rarely clear cut or simple: a given program can be evaluated using a variety of alternative research methods, and results are often subject to competing interpretations. For these reasons,

evaluation through social science methods tends to be politicized: it cannot help but be influenced by political tides, varying ideological perspectives, personal goals and inhibitions, technical limitations of methods used, economic priorities, etc.

A special difficulty for evaluation is the fact that scarcely anyone likes to be judged, and those who run and operate programs or benefit by them are especially likely to react defensively to such judging. Even if the results of the evaluation may be favorable, the scrutiny is difficult to tolerate. There is always the concern that one's behaviors, attitudes, and beliefs will be misinterpreted and distorted in a professional language that is incomprehensible or presented in a form that robs one's individual identity. But beyond the personal concern that one will be misunderstood or misinterpreted is the recognition that evaluations necessarily represent some particular point of view and reflect specific value positions. By their very nature, evaluations are not neutral. Judgments are made based on implicit or explicit assumptions about what a program is and what it should be. To those running a program or benefiting by it, evaluators' judgments are often considered external to the program and hence inappropriate.

It is obviously important that evaluations be undertaken by persons who are not deeply committed to or involved with the program being evaluated because their special interests and deep connections are likely to blind them from seeing the program's inadequacies and weaknesses. But it is also true that the distance and dispassion of an external observer do not necessarily lead to objectivity. Distance and dispassion can also lead to disengagement from what is going on, a lack of identification with and empathy for those who deliver program services and those who receive them, or even worse, an alienation from and disregard for the objectives and values held by them. Good evaluators must balance precariously between an intimate and responsible knowledge of the program and a distance from it that will permit them to see its strengths and weaknesses.

The evaluation process is further complicated by having many diverse audiences that may be eager to know about the impact and effects of the programs being evaluated. Each audience tends to have its own needs for and expectations about information. With various agendas and levels of sophistication, such diverse audiences make a variety of demands on evaluators, sometimes contradictory ones.

For education programs, Congress and the Department of Education constitute two highly visible and crucial audiences. They are crucial for two reasons: first, they can make the decisions about which program to initiate or to expand, which to discontinue or to contract; second, they fund evaluations. Although the scope and responsibilities of the Congress and the Department of Education are clearly the broadest, they are not the only audiences to whom evaluators of education programs must address their findings. Program decisions about education in the United States (even of federally supported education programs) are only partly made at the federal level: thousands of school boards in local communities make most of the school policy that affects the specific character of public education. State education agencies (SEAs) also affect what is taught and how it is taught in each of the 50 states. These local and state school authorities may be able to use information provided by evaluations if the findings are presented in ways that are relevant and understandable. Indeed, not enough careful thought and attention has been given to the problem of how such information can be provided in the most understandable and relevant ways.

Perhaps the greatest impact of evaluations is on those who manage education programs and those who provide the services of the programs. They are the people whose work is being judged. These audiences have the most direct involvement in the programs, are most likely to be threatened by the evaluation process, and may be very fearful that programs will be curtailed or cut off because of an evaluation's findings. Program personnel are, understandably, usually more concerned with the protection of their own programs and projects than they are with the advancement of knowledge. Their political power can be and has been exercised to save a program that appears to be threatened (for example, Head Start, Impact Aid). Often, a negative evaluation finding for a national program appears unjust to local program personnel, who believe that their projects may be better than the average, and offers little help to committed staff who wish to make improvements. Nevertheless, some forms of knowledge from evaluation can be useful to program personnel, to teachers and administrators, for example, who want practice-oriented information that may help them provide more effective instruction.

The consumers of the services provided by a program--parents and their children--also have a stake in evaluation, although rarely have national evaluations been addressed to this audience. This audience is often the most elusive of all because it is not always articulate or well organized. When the consumer audience has been organized, it has usually been in favor of saving a program despite appparently negative findings, probably in the belief that it is better to have a program, even if its effects cannot be proved, than to have no program at all. Yet it is not clear whether consumers have more of a stake in the continuation of a program, regardless of its success, or in the continual improvement of education through development and evaluation of program alternatives. We believe that the consumers of education programs have been the most neglected of all potential audiences, although we recognize that to develop this potential audience into an actual one will require much experimentation with alternative modes of communication.

To further complicate the picture, there are other overlapping constituencies and special interest groups that are concerned about evaluation processes and findings. These groups often reflect minority perspectives that they feel have been neglected or ignored by traditional evaluation designs and outcome measures. They argue for the inclusion of their perspectives in the goals, methods, analyses, findings, and recommendations of evaluations. The National Urban League, for example, which has its own sophisticated research department, has been interested in the evaluations of special programs designed to increase the reading scores of inner-city, minority children. It carefully monitors the programs (value assumptions as well as instructional methods) as well as the evaluation strategies, the data, and the language and style in which findings are presented. The National Organization of Women and other feminist groups carry out similar monitoring of programs and of related evaluations that are of concern to them. These special interest groups are becoming increasingly visible audiences, and they seek to intervene at various points in the evaluation process.

In some sense, an evaluator is expected to provide feedback to all of these audiences, an often baffling and unrealistic expectation, for each of them has a different kind of stake in evaluation, speaks a different language,

and has a different conception of usable knowledge. This report argues that all of these audiences are important, but that any particular evaluation usually should not try to be responsive to all of them. Responding to the myriad and often conflicting expectations of all the audiences is likely to diminish the integrity of an evaluaton and limit its usefulness to any one audience.

The "primary" audience(s) of an evaluation should be identified by those who call for it and by the evaluators who carry it out: the design of an evaluation should anticipate the primary audience(s), and the procedures, methods, analysis, and the language of its reports should correspond to the needs and expectations of the primary audience(s). This does not mean that the findings of an evaluation will be useless or wholly irrelevant to the "secondary" audiences, but it is likely that there will have to be some amount of translation and reinterpretation to make the information useful to them. Defining the audience and targeting the message will reduce the frustration that often accompanies the more eclectic attempts to speak simultaneously with many tongues to many groups. Inevitably the selection of the primary audience(s) becomes a controversial process, one that must be endured, coped with, and responded to by the evaluator. In the case of evaluations that are mandated by Congress or commissioned by the Department, the mandate should include some designation of the primary audience(s) to which the evaluation is addressed, as a guide to the evaluators.

The evaluation process is necessarily a controversial one that requires more than technical and procedural solutions. Technical matters and procedures are not unimportant, but there are other important demands that must be managed with equal care. Those demands include resolving the tensions among opposing values and perspectives, dealing with political priorities, and taking account of contrasting methodological traditions. Most of this report focuses on evaluation strategies and objectives, issues of quality control, utilization of findings, and the organization of evaluation structures. Although these technical and substantive questions are critical to those seeking to improve evaluation studies in education and increase their usefulness, it is important that the evaluation process be seen in context and that the reader be cognizant of the myriad forces that combine to shape any evaluation.

Evaluators must respond to these contextual issues:

they must play a role that includes being aware of the primary and secondary audiences and of competing constituencies, finding the appropriate distance from the programs that will permit access and understanding but not lead to distortion, and seeking to neutralize their place in a highly political environment. Although the role of an evaluator is in many respects a responsive one, it should not be viewed as essentially reactive. Evaluators must do more than negotiate among competing interest groups or respond to the various priorities and needs for information. Unless they maintain some measure of autonomy, they will be useless to all those who call on their services. It is critical to be aware of the needs of the various interest groups, but a keen understanding of audience perspectives should not mold the entire shape of any study. In moving beyond the reactive mode, evaluators might well be envisioned as the translators and bridge builders among the various spheres of research, policy, and practice. Because their work requires that they be adaptive to several environments, they have a unique opportunity to find ways of translating and interpreting knowledge and understandings from one environment to the other.

THE VARIETIES OF EVALUATION

A decade ago, social scientists carrying out evaluations tended to concentrate on providing estimates of the relative effectiveness of programs. As experience accumulated, however, it became increasingly clear that more knowledge was also needed in designing, improving, and implementing programs. Hence, the scope of evaluation has been enlarged to include research in support of policy formulation and program development. The diversity of research activities being carried out under the general term "evaluation" has led to some misunderstandings, especially between evaluators and policy makers. On occasion, policy makers have used "evaluation" to mean research of a particular sort, while evaluators have interpreted "evaluation" to mean a completely different type of research.

In an effort to improve the terminology employed in evaluation activities and to make the terms used more specific in their meanings, we outline in Figure 1 the various uses of social science research in support of the design, implementation, and assessment of social

Questions Arising During the Formation of Policy and the Design of Programs

Policy Question	Evaluation/Social Research Procedure	Research Methods Used
A. How big is the problem and where is it located?	Needs assessment	Assembly of archived data (Census, NCES, etc.) Special sample surveys Ethnographic studies
B. Can we do anything about the problem?	Basic research	Assembly of archived research studies Specially commissioned research
C. Will a proposed program work under optimal conditions?	Small-scale testing	Randomized controlled experiments Pilot studies and demonstrations
D. Can a program be made to work in the field?	Field evaluation	Ethnographic studies Randomized experiments Field tests and demonstrations
E. Will a proposed program be efficient?	Policy analysis	Simulation Prospective cost effectiveness studies Prospective cost-benefit analyses

Questions Arising for Enacted and Implemented Programs

Policy Question	Evaluation/Social Research Procedure	Research Methods Used
A. Are funds being used properly?	Fiscal accountability	Fiscal records Auditing and accounting studies
B. Is the program reaching the beneficiaries?	Coverage accountability	Administrative records Beneficiary studies Sample surveys
C. Is the program implemented as intended?	Implementation accountability	Administrative records Special surveys of programs Ethnographic studies
D. Is the program effective?	Impact assessment	Randomized experiments Statistical modelling Time series studies
E. Is the program efficient?	Economic analyses	Cost effectiveness studies Cost-benefit analyses

FIGURE 1 Policy questions and corresponding evaluation procedures.

programs. The remainder of this report draws upon the terminology established in Figure 1. Both the figure and the discussion below project a degree of linearity associated with policy formulation and program management that is obviously at odds with reality: programs are more frequently than not enacted before systematic needs assessment and program testing have taken place; after a program is implemented, some monitoring questions are asked too early, others not at all; changes are made in a program before there is evidence about it, let alone evidence on the likely effects of the changes. Our discussion of the different types of evaluation questions as applied to education programs is sequential in order to simplify mapping the terrain, not to indicate the order usually followed--or necessarily appropriate in every instance.

Evaluations for Planning Programs

We draw a basic distinction between evaluation questions that arise during the planning of programs and those that arise after a program is operating. The first half of Figure 1 shows the evaluation questions that usually arise during the planning of a program, along with the social science research procedures that are generally employed to provide answers to those questions.

Needs Assessment

Logically, the first question shown in Figure 1 should be asked at the outset of discussions about policy. An educational problem has been identified, but questions may arise about the size of the problem and where it is concentrated. Thus, illiteracy may be identified as a problem, but there may be little information on how many illiterates there are in the nation or whether there are a disproportionate number among some age groups, ethnic groups, or regions of the country. The social science research designed to answer such questions has come to be called needs assessment.

The research effort involved in providing answers to the needs assessment question can be as inexpensive as copying relevant information from published reports from the U.S. census or as expensive as several years' effort involving the design, fielding, and analysis of a

large-scale sample survey, such as the study by Coleman et al. (1966) on equal educational opportunity. Needs assessments do not have to be undertaken solely with quantitative techniques. Ethnographic research may also be instructive, especially in getting detailed knowledge of the specific nature of the needs in question; is likely to be especially effective in determining the nature of a need and understanding the processes involved in the generation of a problem. Formal quantitative procedures, however, are essential when the extent of the need has to be established. Obtaining accurate, up-to-date data on the size and distribution of a problem, such as illiteracy, is an important first step in planning. Assessment of need and of the contexts in which the need is prevalent will help define the problem. Needs assessment will also help determine the size of a program and attendant costs, at least in part.

Basic Research--Choice of Intervention

The second question concerns whether anything can be done about the problem, and if so, what intervention appears the most promising. Answers to this question depend largely on how much is understood about the problem and what policy-related factors can be changed to affect it. Basic research is the activity that provides the answers to this question. Hence, long-range support for basic research on educational processes is critical for the development of the fundamental ideas for education programs. For example, it is necessary to know why there is a connection between socioeconomic level and the rate of learning of basic skills by children in order to properly design programs to improve the learning rates among children from the lower socioeconomic levels. It is also necessary to know how much such learning rates could be improved by changing teaching methods, by lengthening the school day, or by any other policy measure that could be translated into a program. Even when the ideas for such interventions come from seemingly successful exemplary practice rather than from fundamental theory, basic research is necessary to establish the causal connections between the interventions and the learning effects in order to identify the critical components that make the practice successful and, hence, replicable.

At the time that one is looking for proposed

interventions to ameliorate an educational problem, commissioned review papers may be an easy way to bring together relevant existing findings from basic research since the diverse technical literature dealing with educational processes is often difficult to master. However, basic research often does not address suitable policy variables because basic research is concerned with the total causal system as it creates a problem, while the variables that can be changed by policy may be only a small part of the system. For example, studies of children who are disciplinary problems in school may stress understanding the links between the family situations of the children and their behavior. But for policy and programmatic purposes, it would have been considerably more useful if there were studies of how disciplinary systems within schools affect the rates at which disciplinary problems appeared within schools. General research consciously linked to the role that schools and the educational system generally play in learning and other behavior may be the best answer to policy needs. Such research may take a variety of forms, ranging all the way from systematic observational studies of school children to carefully controlled randomized experiments that systematically vary the policy-relevant experiences of children. Without slighting basic research support, it should be emphasized that such policy-relevant general research needs special grant and contract research programs with review personnel that are familiar with what is relevant to policy.

Small-Scale Testing--Program Development

Given a promising intervention, the question that next arises is whether a specific program design will work. Pilot testing of proposed programs through experiments and demonstrations can often lead to better information on whether and how such programs might work. Thus, the contract learning experiments funded by the Office of Economic Opportunity in the early 1970s showed that, while some contractors could provide effective learning experiences, the program aroused considerable opposition among teachers and school systems and hence would not be a successful program if the program mandated the use of outside contractors (Gramlich and Koshel 1975).

We advocate the use of randomized controlled experiments at this stage in the development of a program

because they are powerful. But because they are also expensive, the scale should be relatively modest. The great virtue of randomized controlled experiments is that they eliminate the possibility that effects may be caused by processes other than the intervention; hence, they give a potentially useful program the most valid test. Moreover, program administration can be controlled to ensure that the intervention takes place as intended. Under such conditions, a program has the maximum chance of working: if it is not effective when carried out under controlled conditions by dedicated researchers, there is no reason to believe that it will work under any conditions. However, a commitment to randomized experiments for testing programs should not minimize the complementary potential of ethnographic studies at this stage, particularly to document why a particular intervention succeeds or fails.

Field Evaluation--Program Delivery

Even if small-scale testing demonstrates a program's effectiveness, it should often be changed before being widely adopted. The relevant question is how properly to adapt a proposed program so that it will be effective when it is no longer under the control of researchers or specially trained personnel. Unless the program can be made to work in school systems and in the hands of their personnel (or other intended service deliverers), it will not alleviate the problem it is supposed to address, no matter how effective it was in the experimental setting (Rossi 1979a). A process of mutual adaptation often takes place (Berman and McLaughlin 1975-78) that changes the program as carried out in a given site as much as the site is changed by the program. Changes that are likely to be made by the people and institutions that will be responsible for program delivery must be understood and built into the program in such a way that effectiveness is maintained or even enhanced. Field evaluation (sometimes called formative evaluation) uncovers the ways in which programs can be changed so that they will work well within existing educational settings.
Unfortunately, such field testing has not been undertaken in a systematic way for many education programs, although it has been done in other social service fields: the national supported-work demonstration (see Manpower Demonstration Research Corporation 1979, Maynard et al.

1979) tested a program of transitional, subsidized work experience for people with long-standing employment problems; the youth entitlement demonstration (see Diaz et al. 1980) tested the notion of linking a job guarantee to school attendance and performance.

Randomized controlled experiments are again an extremely powerful tool at this stage; optimally, they should be used to compare several alternative modes of delivery. They should be accompanied by process research activities that use sensitive and observant researchers in close contact with field testing sites. Ethnographic accounts can be extremely useful in understanding why programs do or do not work as anticipated, how the specifics vary from site to site, and what processes impede or facilitate implementation.

Policy Analysis--Program Efficiency

Finally there is the issue of whether a program will be efficient, a question that is answered through prospective policy analysis. Here the issue is how much the program will cost, how much service will be delivered at what level of cost, and whether the anticipated costs of the proposed program overshadow the anticipated benefits. Simulation and prospective analysis, using data from small-scale tests and from field evaluations, are inexpensive and ought to be performed before a program is enacted into law or widely adopted.

Evaluations of Existing Programs

The second half of Figure 1 shows the evaluation questions that arise after a program has been enacted and is in operation.

Fiscal Accountability

Studies of fiscal accountability are perhaps best understood by all since they are part and parcel of the long tradition of auditing the books of public agencies. Procedures are well established and hence much less problematical than those for other types of evaluation activities. In federal education programs, often the only fiscal information comes from grantees' reports on

the use of federal dollars; usually only the large programs are audited by federal auditors. Fiscal audits tend to overlap with other forms of evaluation when questions are also asked about how the money was used (not just whether it is accounted for). Since conventional accounting categories are generally not sufficiently sensitive to determine the level of services being delivered, the fact that funds appear to be appropriately spent in an accounting sense does not necessarily mean that program provisions are being carried out as intended. Fiscal accounts cannot establish program integrity, nor can such accounting establish the true cost of programs, since it does not consider hidden or opportunity costs.

Coverage Accountability

A significant substantive issue is whether a program is reaching the population that is intended to receive its benefits. It should be noted that this issue often turns out to be of considerable importance: not infrequently, programs do not reach their intended beneficiaries or they reach persons who were not intended to be covered--as was the case for Title VII bilingual education programs (Danoff 1978) and for the television program "Sesame Street" (Cook et al. 1975)--or both. Studies designed to measure coverage are similar in principle to those discussed under "Needs Assessment" above. An important source of data for this kind of evaluation is a program's administrative records, which often help to identify overcoverage where this is a problem. Undercoverage, however, may often involve special surveys.

Implementation Accountability

Questions about how a program is being implemented entail studying whether and how intended educational services are being provided. There are many ways in which a program can be less effective in the field than expected. Local program personnel may not be properly instructed in how to administer the program because school and teaching staff may not have received needed in-service training. Regulations may be unnecessarily confusing. The local context may militate against

administering the program as intended, perhaps because resources presumed to be present may not be. Funds intended for a particular program may be used to substitute for funds formerly furnished by other sources. Programs that require institutions to apply for grants to extend benefits to the target population may not be presented in attractive enough terms to achieve adequate participation rates. As a result, fine-tuning of basic legislation or of administrative regulations may be required.

This kind of evaluation is sometimes also labeled process research, because the questions being asked concern the nature of a program as it is actually being delivered and experienced at the particular sites and by the persons involved there. Such evaluation may be relatively simple or may involve measurement problems of considerable complexity. Thus it may be very easy to learn from schools how many hours per week their new computer terminals are being used, but very difficult to learn what precisely is going on inside a classroom when teachers attempt to use a new teaching method, when classroom organization is changed, or when other services are introduced that are highly dependent on persons for delivery. Studies that require direct observation and measurement of classroom activity may turn out to be very expensive to carry out on a large scale. However, for purposes of fine-tuning a program, it may not be necessary to proceed on a large scale: it may not matter whether a particular problem in implementing a program occurs frequently or infrequently, since if it occurs at all it is not desirable. Hence, small-scale qualitative observational studies may be most fruitful.

Impact Assessment

Is a program effective? To answer this question is a task that requires the highest level of social science research skills. The essential issue is whether a program produces more of an intended effect than would have occurred without the program. While the question may appear to be simple, impact assessment is extremely difficult to carry out well. It entails both the statement of some measurable goals and the determination of what would have happened without the program. Each step is difficult. Negative effects must also be looked for. Even when measurable goals are agreed to and the

differences made by the program can be determined, distinguishing between success and failure is not a clear-cut decision; there are usually degrees of success or of failure. A program intended to improve reading that succeeds in raising students' average reading level by a half-year more than expected (in the absence of the program) is less successful than one that has effectiveness estimates of a full year.[1] This quantitative difference has to be translated into a qualitative difference when the decision to fund one rather than the other program comes into question.

The critical effectiveness issue is whether a program does anything for its beneficiaries to help them advance towards the goals of the program. While it is relatively easy to measure the status of beneficiaries at any time, the difficult problem is to determine what their status might have been had they not participated in the program. An ideal solution to this problem is the randomized controlled experiment, which ensures that the people within the experiment who participate in a program are "identical" to the people in control groups who do not participate in the program. Randomized controlled experiments, however, are usually not feasible for studying programs that have been in operation for some time, since it is ordinarily not possible to find appropriate individuals who have not been exposed to the program to assign to control and experimental groups. As suggested above, such experiments are most appropriate in the program development phase. For ongoing programs, other techniques must be employed, such as comparing participants before and after a program has been enacted or comparing beneficiaries to those who do not receive a program's benefits. Such research and statistical techniques require extreme care; a large literature that is devoted to them warns of the many pitfalls in their use.

Policy makers should call for impact assessment only when circumstances warrant such studies (see below). They should be wary of requiring impact assessment from agencies that cannot marshall the necessary skilled personnel. They should be equally wary of requiring impact assessment, which is expensive to do adequately, without providing sufficient funds. In particular, only a few local and state education authorities have the capabilities or resources to competently carry out impact assessments; hence, such tasks should not be imposed on all state and local agencies without special attention to providing sufficient resources.

Economic Efficiency

The final question in the second half of Figure 1 asks whether the costs of the program are justified by the gains achieved. The same question might be raised in a comparative framework, that is, whether program X is more efficient than program Y in achieving some particular goal. While these questions also arise during the planning phase of program development (see above), at this point in the process the answers are no longer anticipated costs and benefits but actual costs and benefits based on good estimates of effectiveness and field experiences with the programs.

The main problem in answering such questions centers around establishing a yardstick for such an assessment, for example, dollars spent for units of achievement gained, for number of students covered, or for classes or schools in the program. The simplest way of answering questions of efficiency is to calculate cost-effectiveness measures, for example, dollars spent per unit of output. In the case of the "Sesame Street" program, several cost-effectiveness measures were computed, such as dollars spent per child-hour of viewing and dollars spent per additional letter of the alphabet learned (Ball and Bogatz 1970, Bogatz and Ball 1971). (Note that the second measure implies knowing the effectiveness of the program, as established by an impact assessment.) The most complicated mode of answering the efficiency question is to conduct a full-fledged cost-benefit analysis in which all the costs and benefits are computed. Relatively few full-fledged cost-benefit analyses have been made of social programs because it is difficult to measure all the costs and all the benefits in the same terms. In principle, it is possible to convert into dollars all the costs and benefits of a program; in practice, however, it is rarely possible to do so without some disagreement on the valuation placed, say, on learning an additional letter of the alphabet.

WHETHER TO EVALUATE

Implicit in the preceding discussion is the assumption that a program, prospective or enacted, can be evaluated in some way or another; however, that is not always true. There are some programs, whose characteristics are described below, that cannot be fully evaluated or that cannot be evaluated at all.

All programs that have been enacted can be evaluated in the sense of fiscal accountability. Procedures that have been detailed in laws or in regulations can also be evaluated as to whether they are being carried out as intended. But only programs that specify clearly the intended beneficiaries and the intended effects can be evaluated fully. This is not to say that programs with vaguely stated aims are not worthwhile; it is to say that they cannot be evaluated as to their effectiveness. Thus, a program that has the announced intention of enriching the cultural lives of high school students cannot be evaluated with respect to its impact because the aim of "enriching the cultural life" is simply not specific enough to provide criteria for judging effectiveness. In addition, the group of intended beneficiaries, high school students, is so broad and inclusive that one simply could not measure "effects" for all of them.

A prime requisite for being able to evaluate the impact of a program is the existence of clearly designated, specific aims. But, as Wholey et al. (1975:89) note:

> As a natural result of the political process, federal programs usually have many poorly defined objectives. Authorizing legislation and program guidelines are generally vague about program objectives and priorities. . . . Policy-makers and managers often perceive that ambiguity about what constitutes success is an asset, permitting flexibility and helping ensure survival.

This situation often puts evaluators in the position of setting goals or selecting among several stated goals. A program may have a number of diverse goals: for example, Head Start was intended to provide better health care and nutrition for poor children, improve their cognitive development, increase their social competence, improve the conditions of participating families and communities, serve as a focus for political action and community organization, and result in more effective functioning of other service agencies. (See, for example, Office of Child Development 1973.) In such cases, evaluators and those who commission evaluations must agree on which of the goals are most important to assess and whether they are sufficiently specific to permit an impact evaluation. Often, however, the problem of goal

selection is governed by the law of instruments: as the early evaluations of Head Start demonstrate, those goals for which measurement instruments exist--for example, cognitive achievement--will be the goals by which a program is evaluated, even though other goals may be equally important.

Some programs allow each local school system to set its own goals within broad program aims and to design its own interventions, provided money and services go to the target population. For such a program, it is possible to evaluate the impact of individual local projects but nearly impossible to gauge the effectiveness of the overall program by aggregating effects over many sites. A similar problem exists for programs that provide funds or other assistance to local school authorities without specifying more than very general goals. These, too, cannot be evaluated for impact at the national level because there is, in fact, no national program but a collection of diverse local programs. For example, Title I of ESEA is intended to expand and improve education programs for educationally deprived children but it does not specify in any detail what is to be accomplished. Therefore, it cannot be evaluated nationally (except in the accounting sense), though projects at individual sites can be evaluated if goals and interventions are sufficiently specific.[2] Indeed, programs like Head Start and Title I have never been successfully evaluated for national impact no matter how massive the study without heroic assumptions concerning their intended aims, assumptions that then created considerable controversy when evaluation findings were released. Results from individual local studies may cumulate as a program matures, however, and should be synthesized to permit general conclusions.

This criterion of specificity in aims also applies to prospective programs. If such programs do not have specific aims, they cannot be developed properly using social science evaluation unless sponsors are content to let evaluators specify program goals and intended outcomes. Experiments and demonstrations cannot be properly designed without knowing what the criteria for effectiveness are to be; cost-benefit analyses cannot be made without knowing what the anticipated benefits are; and so on.

Techniques have been developed (Wholey 1979, Schmidt et al. 1979) to determine whether a program can be evaluated (in the senses discussed above), i.e., whether

it is evaluable. Members of Congress and other decision makers may want to commission such studies of evaluability as a first step in evaluation rather than to assume that all programs can be evaluated. Indeed, we commend the Department for shifting some of its evaluation resources in this direction; so far, 10 evaluability studies have been commissioned by the central evaluation unit of the Department.

WHEN TO EVALUATE

Even if a program is sufficiently specified to allow both accountability and impact evaluations, conducting impact evaluations may be inappropriate at a particular time because of the stage of program development or implementation. There are three phases in the life of a program that are notably inappropriate for impact evaluations. The first is during the program's development. We have suggested that a proposed program be tried out under actual field conditions after it has been proved to be effective in a controlled experimental setting. The purpose of this phase is to adapt the program so that it will be maximally effective under normal operating conditions. Obviously, impact (or summative) evaluation is totally inappropriate during this phase; at this point, evaluation should be used as a tool to fine-tune the program, not to judge it.

The second phase is after a program has been enacted and is being put into operation. All programs require a shakedown period, during which program administrators develop regulations and operational procedures and teachers and school personnel (or other service deliverers) become familiar with the program's objectives and methods. The more complex a program, the greater the start-up problems. When a program allows flexibility and local choice, further time must be permitted for local decision making and development of specific features. Until a program has stabilized, it ought not to be evaluted, except for fiscal accountability. Too many negative findings have, in the past, been due to premature impact evaluation. Even accountability evaluations may be inappropriate in the early implementation stage, as demonstrated by findings on weak administration and even misuse of Title I funds in the first studies of the program, findings that did not hold up once personnel at the state and local levels had

learned how to operate the program (Kirst and Jung 1980). The Title I studies also demonstrate another point: if more effective policy analysis were conducted before implementing a program to ensure that program legislation and regulations did not lead to confusion in the field, the shakedown period might be considerably reduced.

The third phase during which impact evaluations are inappropriate involves education programs that have long-range as well as short-range objectives. For example, career education may be concerned with helping youth achieve both entry-level skills and satisfactory career paths. Obviously, the second objective is not measurable until effects emerge after a number of years. Assessment of such effects requires time-series studies, which take long-range commitment or sophisticated statistical modeling that requires highly skilled researchers. Too often, impact evaluations have either ignored long-range effects as too costly and time-consuming to assess, or they have attempted assessment of long-range effects in an unrealistic time frame. As a result, the full effects of the program remain unknown, even though evaluation is said to have taken place. If programs are to be judged by their results, enough time must be allowed for the program's full effects to emerge before full-scale impact evaluation can be done.

One final point about the timing of evaluations concerns old programs. There is a need to address policy issues in programs that have been operating so long as to become routinized. How have conditions changed? Are there different educational goals? Have the needs of intended beneficiaries changed? Periodic evaluations may provide needed "shake-up" to ensure that a program is still meeting priority objectives.

Recommendation C-1. When Congress requests evaluations it should identify the kind of question(s) to be addressed.

At present, there is a multiplicity of requirements for evaluation that vary from title to title (see Boruch, Cordray, and Pion, Ch. 3 in Boruch and Cordray 1980). In some cases, Congress calls for elaborate and detailed evaluation studies involving sophisticated quantitative techniques and analyses; in others, requests are made for

impressionistic and anecdotal reports. Congress needs to be more systematic in its approach to evaluation. Instead of specifying methods, Congress should make sure that evaluators are clear about the questions to be answered.

Figure 1 above identifies 10 kinds of evaluation activities. At least part of the charge that evaluations have been irrelevant to Congress's needs for information stems from the fact that Congress has often been interpreted to be calling for impact evaluation when in fact it desired only to know, say, how well a program was meeting its coverage requirements. A call for evaluation that does not specify what questions are being asked can lead to the mismatching of expectation and performance by Congress and the evaluators. While legislators might include the policy questions to be addressed directly in the legislative provisions for evaluation of a program, it may not always be possible to frame questions with sufficient specificity at the time evaluation provisions are being enacted, especially for new programs. In such cases, sufficient dialogue should take place between the legislators and the implementing agency and the evaluators to ensure that the evaluation will meet its intended objective (Berryman and Glennan 1980).

Congressional mandates for evaluation should also identify the audience that is to be served by the legislated evaluation: Congress beneficiaries such as parent or other interest groups, local program administrators, federal program administrators, and the like. The reasons for specifying audiences in any evaluation are discussed in greater detail in later chapters. The reason for including audience specification in this recommendation is that such specification will also sharpen the policy questions because different audiences tend to have different information needs.

Though we recommend that it be specific with respect to question and audience, legislative language regarding evaluation should refrain from specifying details of method (such as sampling procedure or use of control groups) or of measurement. These are matters requiring careful technical consideration of specific evaluation conditions and contexts and should be chosen only after adequate planning and the application of expert knowledge.

Recommendation D-1. In evaluations initiated by the Department of Education, the kinds of evaluation activities to be carried out should be specified clearly and should be justified in terms of program development or program implementation.

This recommendation is analogous to the one to Congress, but emphasizes the need to think through what type of evaluation activity is appropriate at any given stage of development or implementation of a proposed or an existing program. While evaluation activities are, of course, specified in great detail by evaluation personnel at the procurement stage, this recommendation is directed to the overall evaluation planning stage when top-level Department officials need to specify what they wish to know about a program (i.e., the policy questions), why they wish to know it at some specified time, and what other audiences have information needs that must be satisfied through evaluation activities.

Recommendation D-2. When pilot tests of proposed major programs are conducted, pilot tests of evaluation requirements should be conducted simultaneously to determine their feasibility and appropriateness.

One of the welcome procedural improvements in recent years has been the greater use of pilot tests of proposed national programs. The argument is often made that pilot tests and field evaluations are costly and time consuming and that an urgent social need cannot remain unaddressed while the ponderous process of research proceeds. But the urge to get programs off the ground without prior testing brings with it certain and often high costs: programs develop an array of self-interested suppliers and clients who are likely to fight any changes, even when subsequent evaluations and research indicate that they are needed. The Committee endorses the concept of pilot tests since they have the obvious advantage of allowing decisions on implementation and on program changes to be made before programs become entrenched. Another welcome precedent is that, more and more, legislation routinely prescribes that programs contain their own evaluation requirements. Such provisions ensure that some sort of evaluation will be made of programs on a continuing basis.

This recommendation focuses on the intersection of

these two developments. While pilot tests of a program are being made, it is relatively easy to also conduct a pilot test of the proposed evaluation. Such a pilot test can be used to find out what measurements can and cannot be made of program benefits, how programs should account for and measure costs, which testing instruments and procedures are disruptive and which are not, how large a sample of beneficiaries is needed to get valid program measurements, and so forth. If a pilot test of the evaluation is carried out in conjunction with the pilot test of the program, the design of both the program and of the evaluation requirements will be strengthened. Indeed, if evaluation requirements are not pilot tested, it is difficult to see how those charged with evaluation responsibilities at the local and state levels are to be held accountable.

STANDARDIZATION OF METHODS AND MEASURES

As indicated in the preface to this report, one of the missions given to the Committee was to make recommendations and proposals ". . . to ensure that evaluations are based on uniform methods and measurements." The Committee's major contribution to this goal is to attempt to develop a terminology for the various kinds of evaluation activities, as discussed above, and to match evaluation questions with appropriate research approaches. However, we believe that to proceed any further with specific recommendations for attaining uniform procedures and measurement is a premature step at this stage in the development of evaluation.

At the present time, the science and art of evaluation is in a state of considerable change and improvement. Each of the social science disciplines has made contributions to the procedures now used, and while there is some agreement on the rough preference ordering of procedures to address a set of policy questions, the rapid rate of development along with considerable diffusion of methods from one field to another means that today's preferences may be superseded by tomorrow's more mature understanding of the proper fit between problem and method. In addition, evaluation activities are being undertaken in a variety of substantive areas--not only in education, but in manpower training, energy conservation, health services delivery, child care, public welfare payment plans, criminal justice procedures, and so

on--and in each of these areas new methods and procedures are being developed that can be expected to enrich the field of evaluation.

The Committee believes that, while the goal of attaining uniformity in evaluation methods and measures is an extremely desirable one, it cannot be attained at the present time without prematurely inhibiting further advances in the field of evaluation and stopping it short of needed development. The recommendation below that the National Institute of Education (NIE) continue and strengthen its program of support for basic research in evaluation methods is made in part to accelerate full development of the field of evaluation.

Recommendation D-3. The National Institute of Education should continue and strengthen its program of support for research in evaluation methods and processes.

The field of evaluation is a relatively new one that has made considerable progress in the last 15 years; however, it is far from fully developed. It continues to apply promising research approaches from all the social science disciplines and feed back to them the resulting experience. Hence, support of research in evaluation methodology not only improves the field of evaluation, but enriches the basic disciplines--an effect that is also important for fundamental research in education.

The Committee believes, however, that support for development in evaluation has been uneven, in particular, that too much attention has been given to investigating problems in the use of randomized controlled experiments, a procedure that has only limited utility in evaluation generally. As a result, other important problems in methodology have not received sufficient study. Especially important is the development of methods for studying the delivery of services (implementation), for investigating the properties of achievement tests when used in the evaluation of programs (rather than in ranking individuals), and for assessing the impact of programs that cannot be studied through the usual experimental paradigms.

Another neglected area of research has to do with the process of evaluation itself: how studies are commissioned and initiated, how they are managed, what procedures govern their execution, what legal constraints impinge upon them. Evaluation is controlled by at least

three different agencies: the sponsor of the evaluation, the program or service agency in the field (e.g., a school system), and the evaluators. When the sponsor is a federal agency, there are three control points within the agency: the evaluation monitor, the contracts office, and the manager of the program being evaluated. The complexities created by these multiple organizational relationships create constraints for any study, and those constraints have been given little attention. Our own limited findings related to such issues are reported in the next three chapters; those findings make it clear that the evaluation process must be better understood if it is to yield good results.

The National Institute of Education should encourage work in the noted areas of methodology and process as part of its evaluation research program. Furthermore, with rare exceptions, when a specific methodological question must be addressed in a given time frame or the process of a specific evaluation is to be studied, all such research should be carried out through a competitive grants program that specify the areas of interest but not the approach to be taken.

NOTES

1 Success here is defined in terms of the objectives of the program. It is quite possible that a program successful with respect to its own objectives may be educationally undesirable. For example, perhaps more time was spent on a targeted skill and so some other important skill was neglected and hence less developed than it would have been in the absence of the program. To gauge the overall educational contribution of a program, it is necessary to assess such negative as well as the positive effects.

2 A good deal of knowledge that can be applied to program improvement may, in fact, be gained through documenting program variations and their effects. A panel of the National Research Council's Committee on Child Development Research and Public Policy is currently reviewing outcome measurement in early childhood demonstration programs. Given that local program variation is encouraged by many early

childhood programs, the panel has given considerable attention to the need to consider the relationships between variations in treatment and outcomes within programs and on adaptations in program practice and variations in outcomes from site to site.

3
Quality of Evaluation

Knowledge about the quality of evaluation studies in education is limited. It comes from three sources: technical critiques and reanalyses of specific (usually large-scale) studies, a few scattered reviews of some samples of evaluations, and analyses of the influence of the political context on the quality of evaluations. The effects of the managerial context on quality--how evaluations are commissioned and carried out--has received considerably less attention. Yet the level of funding, what types of organizations usually perform evaluation studies, and the availability of adequately trained individuals all influence the quality of evaluations. In addition, procurement procedures can encourage or discourage creativity, and interorganizational complexities can introduce delays that often have deleterious effects on the course of a study.

There are several dimensions to the issue of quality. Evaluations can be competently done but not be very creative. They can be imaginatively done but be sloppy on some points. The various standards for evaluation work recently developed by a number of groups (Joint Committee on Standards for Educational Evaluation 1980, U.S. General Accounting Office 1978, 1979, 1980b, Evaluation Research Society 1980) may be useful to the profession, but since any major evaluation is a customized task, they cannot resolve quality issues in any specific instance. Furthermore, quality is inevitably subjective, especially in an activity such as evaluation for which facts and values are inextricably linked. For these reasons, the Committee's

recommendations do not feature rigid requirements. Instead, the Committee has chosen to highlight some defects that commonly stand in the way of improving the competence, creativity, and integrity of evaluation and to propose ways of institutionalizing some quality control mechanisms. In this chapter, we first review the available evidence on the quality of evaluations and on the influence of the political context and then analyze some of the managerial constraints that affect quality. In the last section, we focus on evaluation at the state and local levels.

REVIEW OF THE EVIDENCE

Critiques of Individual Studies

Individual studies of evaluations have generally centered on evaluations of highly visible programs with strong advocates and adversaries. Some prominent examples in education include: the reviews of Equality of Educational Opportunity (Coleman et al. 1966), which were edited by Mosteller and Moynihan (1972); the critiques of the Westinghouse-Ohio study of Head Start (Cicirelli and Granger 1969), which were initiated by Campbell and Erlebacher (1970) and grew so voluminous that the critiques themselves have been analyzed and their impact assessed (Valentine and Zigler 1979, Datta 1975, 1976); the evaluations and reevaluations of "Sesame Street" (for example, Ball and Bogatz 1970, Bogatz and Ball 1971, Cook et al. 1975); the evaluation of the effects of the Emergency School Aid Act (ESAA) programs (Crain and York 1976, National Opinion Research Center 1973), which was then the subject of critiques by the National Advisory Council on Equality of Educational Opportunity (1975) and Acland (1975); and the recent evaluation of bilingual education (Danoff 1978), which has received much political as well as some technical criticism from the National Institute of Education and others (U.S. Congress 1977). Both the technical and the political criticisms have helped the evaluation field to mature, although the debates have at times been acrimonious and appeared to confuse rather than illuminate program achievements and conditions. The debates may also have created a degree of cynicism about evaluation. Whatever confusion and disenchantment the critiques and debates have engendered, however, they have served to sensitize evaluators to

methodological pitfalls and to the need to consider the context in which evaluation takes place. More specifically, as we noted above, they have given rise to several sets of evaluation standards. Unfortunately, the total number of studies subjected to open professional review has been small, and the absence of such review has not necessarily inhibited the use of evaluation findings. Datta (1979) analyzes an interesting example of a study on the effects of federal education programs (Berman and McLaughlin 1975-78) whose summary findings were widely accepted and applied in policy formulation without questioning when later examination revealed considerable problems with some of the summary conclusions and the interpretations they had been given.

Reviews of the Field

Aside from the critiques of some landmark studies, there have been few systematic reviews of the quality of evaluations, such as assessments of representative samples of studies published during a specified time period or resulting from the activities of a particular sponsor or group of performers. In an early study, Bernstein and Freeman (1975) started with 236 studies from fiscal 1970, of which they ruled out 84 as not being comprehensive, i.e., not measuring both process and impact. Using criteria oriented toward quantitative and experimental methodology, they found only 27 of the remaining 152 studies to be of high quality, less than 20 percent; 76, or 50 percent, were deemed to be of low quality. Minnesota Research Systems, Inc. (1976) examined 110 research studies (about 45 percent of which were classified as evaluations) funded by the U.S. Department of Health, Education, and Welfare (HEW) and completed in 1973 and 1974. Less than 10 percent were deemed to be free of significant methodological flaws. Moreover, they found that in 90 percent of the cases the flaws already existed at the proposal stage.[1]

The size and the scale of evaluation studies have grown considerably since the early 1970s, but problems of quality appear to persist. Rossi (1979b) reports on an examination, done over 3 years for the Summer Evaluation Research Institute at the University of Massachusetts, in which several hundred requests for proposals (RFPs) were screened to look for those likely to lead to a sound research plan. Using that criterion, less than a dozen

were identified as being suitable for teaching purposes. On the performer side, evaluation researchers who screened more than 100 evaluation research reports on behalf of the Russell Sage Foundation identified only some half dozen that merited special review as examples of high quality (Rossi 1979b). Abt (1979), who heads one of the major firms engaged in evaluation research, has estimated that only 5 to 20 percent of studies in the field of evaluation can be considered valid and relevant research. He notes that these numbers might be acceptable compared with those for basic research but that they are far lower than is the case for other applied fields such as engineering or legal research.

Indirect evidence on the quality of evaluation studies comes from a number of attempts, briefly noted in Boruch, Cordray, and Pion (Ch. 5 in Boruch and Cordray 1980), to identify exemplary programs. Such attempts--for example, finding effective programs to increase equity in vocational education, programs in bilingual education, and programs in career education--usually yielded only a small number for which sufficient evidence was available to make judgments as to their educational promise. The number of projects so identified tended to be less than 10 percent. Only in the case of the Joint OE/NIE Dissemination Review Panel, which judges exemplary projects proposed for dissemination, is the rate of projects that show adequate data on effectiveness more than 50 percent; as Boruch, Cordray, and Pion note (Ch. 5:7 in Boruch and Cordray 1980), however, this estimate is "biased in the direction of higher quality due to voluntary submissions" and the efforts by the panel to promulgate its standards for acceptable evidence, which were published by the U.S. Department of Health, Education, and Welfare (Tallmadge 1977).

Except for Bernstein and Freeman (1975) and Minnesota Research Systems, Inc. (1976), these sources of information on the quality of evaluation studies do not distinguish between studies commissioned at the federal level and those commissioned or carried out at the state or local levels. A number of the studies commissoned and funded by the Office of Education's central evaluation unit have been widely recognized for their technical proficiency in terms of general standards prevailing in the field. The picture at the state and local levels is decidedly more mixed, as documented in two studies cited by Boruch, Cordray, and Pion (Ch. 5 in Boruch and Cordray 1980) that considered the quality of evaluations

performed at those levels. The first study, by the U.S. General Accounting Office (GAO) (1977), surveyed state and local officials on how sound and reasonable they considered evaluation findings from reports produced by state and local agencies. While reports issuing from the same level of government were more credible to officials (i.e., state officials rated state reports more highly, local officials rated local reports more highly), even the most favorable ratings considered only two-thirds of the reports adequate or better, and in the least favorable cases (state views of local Title I reports), barely one-third were considered to be adequate or better. Among other recommendations, the GAO requested that the Office of Education review the program information collected in local agency evaluation reports in order to determine whether such information could be aggregated to serve the different needs of federal, state, and local governments.

In the second study, focused on evaluation carried out at the local level, Lyon et al. (1978) reviewed 116 studies for the presence or absence of criteria considered to be necessary elements of an evaluation. As Boruch, Cordray, and Pion note (Ch. 5:7 in Boruch and Cordray 1980), the Lyon study "suggests that simple standards are not often adhered to." Holley (Appendix C) comments that among the possible reasons are insufficient evaluation funds, insufficient control of the funds and often of the evaluation activities themselves by program administrators, and lack of training and experience of many of the personnel who are assigned evaluation responsibilities.

The Political Context

One of the sources of disappointment with evaluation is that it appears not to have contributed as effectively as hoped to the making of decisions about programs. At times, this lack has been attributed to the inadequate quality of many evaluations. More recently, however, the analytic literature dealing with the contributions and failures of evaluation has reflected a considerable shift regarding the potential for decision making offered by program evaluation. Such early studies as the Westinghouse-Ohio evaluation of Head Start (Cicirelli and Granger 1969) were in part condemned for a narrow choice of outcome measures that did not adequately reflect

program goals. More recent writing has emphasized the diffuseness, multiplicity, and ambiguity of goals in most social program legislation. Without specification of outcomes that can be measured, program evaluation as originally envisaged loses credibility because the effects achieved cannot be compared with those intended.

Researchers do not agree on how to deal with the dilemma of program legislation that may be specific on process but is vague on intended objectives, yet mandates evaluation. Rossi et al. (1979) have suggested that program goals should be spelled out specifically enough to allow impact assessments; more recently, he and Chen (1980) have argued that researchers cannot simply accept official goals but must learn how to interpret programs and their likely effects more accurately in order to design evaluations that are sensitive to program impact. Wholey, when he was Deputy Assistant Secretary for Evaluation of HEW, introduced the notion of evaluability (see Appendix A) whereby short-term, exploratory evaluations would determine the operational objectives of a program and whether they could be measured (Wholey 1979); if they could not, costly impact assessment would not be commissioned. Cronbach et al. (1980) argue that the quest for specification of goals is futile and that evaluation is a prospective activity better suited to understanding processes and events for future program formulation than for retrospectively appraising the performance of programs against predetermined objectives.

There is more agreement on the role of the evaluator in the decision-making process, namely, that the information developed through the processes and by the canons of social science is, and should be, only one of the determinants of policy regarding education (or any other social) program decisions. Arguments deriving from research on how evaluation findings are used (Caplan 1977, Alkin et al. 1979) have led to recommendations that evaluations, to be useful, must be done in close cooperation with the intended user and must also involve a process of negotiation that draws on the views of beneficiary and constituency groups. However, such a process is often counter to the objectivity considered to be a hallmark of quality evaluation. According to Schreier (1979), it pits the insider's (e.g., client's, teacher's, program manager's) intuitive perception against the outsider's concern with quantitative assessment. The result is that they are unlikely to agree on goals. The focus of evaluation may then shift

to good management, the purpose being to improve program process rather than to ascertain how well outcomes, which remain unspecified, are being met.

THE MANAGEMENT CONTEXT

Over the last decade, evaluation of education programs has become big business, and this has had an impact on quality. When the first legislative mandate for evaluation was written into law as part of the 1965 Title I (ESEA) legislation, evaluation was considered to be an activity carried out at the local level for accountability and to improve the program. Every year thereafter, local evaluation activities were initiated for a number of programs, usually coordinated by an evaluation specialist within the federal program office. As the number of activities grew, concern with quality and need for generally applicable procedures led to the establishment in fiscal 1970 of a central evaluation unit in OE (see Appendix A).

Funding

Before fiscal 1970, the Office of Education had about $1.25 million per year for central evaluation available. In that year, for the first time, there was a separate line item for evaluation. The peak funding for the central evaluation unit was reached in 1978, with $29.7 million obligated for evaluation contracts. In 1980, the amount had decreased to $19.4 million. The most precipitous drop within the unit came in evaluation funds for discretionary purposes, i.e., not earmarked for a specific title: these funds dropped from $7.1 million in 1977 and 1978 to $3 million in 1980 (U.S. Department of Health, Education, and Welfare 1979b).

According to Reisner's estimate (Appendix A), in fiscal 1980 the Department of Education was planning to spend some $40 million on a variety of evaluation activities, half of the work being carried out by the central evaluation unit and nearly a quarter by the Inspector General. If one wishes to calculate the total amount spent for program evaluation in education, that estimate needs to be augmented by the amount spent by the General Accounting Office (estimated at $2.5 million) and an unknown amount of federal funds devoted to evaluation

activities carried out or commissioned at the state or local levels. Taking a different approach, Sharp's analysis (see Appendix B) is based on performer rather than sponsor data, includes policy studies as well as evaluation activities, and is for 1977 when there may have been a somewhat greater investment in evaluation: her best estimate is that a total of $100 million in federal funds was spent for evaluation in education at all levels of government. This amount represents something like a fourth or a fifth of all evaluation activities funded by the federal government. By far the largest growth occurred during the earlier part of the decade (see Abramson 1978, Cronbach et al. 1980, National Science Foundation 1979); during the last few years, federal funding for evaluation, at least that portion visible at the national level, has actually decreased somewhat, matching the trend for overall funding for education. As a percentage of total federal expenditures for education, the current investment in evaluation represents about 0.5 percent of the total federal support for education, which stood at $14.2 billion in fiscal 1980.

Performers

Although expenditures for evaluation may appear modest as a percentage of expenditures for education, they are a major source of income for private-sector performers of educational research and development.[2] Such performers account for nearly half of the total spent for evaluation (Appendix B:Table B-4) and are particularly prominent in carrying out medium-scale ($100,000-$500,000) and large-scale (more than $500,000) studies (Appendix B:Table B-5). Within the private sector, for-profit firms report that more than 50 percent of their research activities consist of evaluation and policy studies (Appendix B:Table B-3). By contrast, less than 10 percent of academic institutions carry out medium- or large-scale studies; some 40 percent report doing no evaluation work at all (Appendix B:Table B-5).

Moreover, evaluation work is heavily concentrated among major[3] private-sector performers; they account for 83 percent of evaluation funds spent in the private sector (Appendix B:Table B-8). They are also more heavily dependent on federal funding than any other set of institutions (Appendix B, Table B-9). As Sharp notes (Appendix B:219):

Large private-sector organizations and organizations which specialize in education RDD&E have especially few other sources of funding: half of the organizations which expended more than $1 million in 1975 for education RDD&E received at least 75 percent of their funds from the federal government, and one fourth of them received at least 90 percent from this source.

Personnel

Evaluation is a relatively new field that is to a significant degree staffed with individuals recruited from other fields. This newness creates a critical quality problem at the state and local levels (see below), but important gaps exist throughout the evaluation enterprise. Of specific concern are the underrepresentation of minority group members in educational evaluation, the communication barriers between evaluators and administrators, and the failure of individuals charged with evaluation responsibilities to keep up with developments in the field.

Toward Equal Educational Opportunity

In order to further the national commitment to equal educational opportunity, nearly 80 percent of federal education programs are targeted for racial, ethnic, handicapped, and other minority or disadvantaged groups. And if federal programs are to provide more effective educational services for these groups, consistent input on their needs must be part of the evaluation process. An examination of social science research over the last 40 years (Gregg et al. 1979) shows how research questions have changed in those fields--and those fields only--in which the subjects of inquiry have participated actively in defining the problems. Though talent and skill remain the prime requisites for evaluation personnel, the perspective that comes from being a member of the recipient group augments the evaluation process in important ways. Thus, one can look at bilingual education from the viewpoint of society as a whole, of the classroom teacher, or of the non-English-speaking child and family. Women, blacks, and other minorities have helped give a different cast to educational research

that arises out of their perspectives. For this reason, the Committee is concerned that individuals from these groups who could contribute to broadening evaluation perspectives are not adequately represented in the current staffing and procurement of evaluations.

For example, of the 65 professional staff of the central evaluation unit of the Department of Education in March 1980, there were 4 black men, 2 black women, 1 Asian man, and 19 white women. There were no Hispanics or American Indians on the staff. For another example, in the technical assistance centers (TACs), which have been created to aid local projects in conforming to the guidelines and standards set for Title I evaluations and which presumably should act as models for expanding the audience and decentralizing the process, not a single director or senior staff person was a minority individual as of spring 1980. Of more than 100 evaluation professionals at any level in the TACs, there were only 8 minority persons. Principals in the central evaluation unit have consistently expressed a desire to hire more ethnic and racial minority persons in key professional positions, but, according to them, have not been successful in finding those with the appropriate background and necessary skills.

As a group, minority-run firms have fared particularly badly in the field of evaluation. Despite special provisions for 8-A contracting,[4] only 15 of 200 new contracts awarded by the central unit during fiscal 1976 through fiscal 1980 went to minority firms,[5] 8 through the 8-A process and 7 through the competitive process. These 15 evaluation contracts accounted for less than $4 million of a total of close to $100 million awarded in those years, or barely 4 percent of the total, and only 10 minority firms were involved.

The issue is not simply nor even primarily an affirmative action one. We presume that both the Department of Education and its contractors and grantees are complying with the laws regarding equal employment and affirmative action programs. In fact, it has been argued that women and minorities are already represented on staffs and in the evaluation enterprise proportionate to their percentage in the available talent pool. But this is not the only criterion: they are greatly underrepresented compared with their numbers in the beneficiary population. The Committee is not suggesting proportionate representation, but we are stressing the importance of this issue in personnel and procurement

practices. In our recommendations below, we suggest some means for greater involvement of minority firms and individuals in performing and reviewing evaluations. Our first recommendation addresses the issue of the talent pool, since unless it is expanded minority participation in evaluation will continue to remain limited. At the same time, the recommendation considers some additional gaps in the training of evaluation personnel that must be remedied if the quality of evaluations is to improve.

Training

Recommendation D-4. The Department of Education should provide funds for training programs in evaluation to increase the skills of individuals currently charged with carrying out or using evaluations and to increase the participation of minorities.

This recommendation covers three training needs that require extramural support: recruitment and training of minority individuals; training to improve the communication between evaluator and the user of evaluations; and training for those currently involved in evaluations. Two related issues are covered in other recommendations: broader technical assistance to state and local agencies is discussed later in this chapter, and intramural training for federal evaluation and program staffs is discussed in Chapter 5.

After 15 years, the rationale that there are no minority researchers available to help evaluate education programs is not tenable. Their absence is particularly marked, and particularly detrimental, at the senior levels of both sponsoring and performing organizations. There are increasing numbers of minority persons in training in Ph.D. programs in social and behavioral sciences, in part because of numerous federally sponsored fellowship programs.[6] These social and behavioral science graduate students very often express interest in "applied research," but do not often have an opportunity to learn about it. They represent a sizable pool of potential evaluation researchers who could staff positions in the Department of Education, who could advise and consult with local and state evaluation groups, and who could work with universities and private consulting (including 8-A) firms in carrying out evaluations. Fellowship and internship programs in

evaluation that include specific priorities for minority group persons would be doubly valuable. They would produce good researchers and they would enrich the evaluation system. Some of the current fellowship programs could include a special component for people studying evaluation, and internships could be made available for people in their third or fourth year of doctoral study. Such internships might be coordinated through contractors, states, or local school systems doing evaluations of federal education programs. A percentage set-aside from evaluation contracts might be used as a pool of money for mounting such a national program. Alternatively, RFPs or grant announcements might require that such internships be budgeted and the training parameters specified. A feeder system through other federal fellowship programs concerned with increasing minority participation in social science research and development activities could also be initiated.

The second training need concerns the relationship between the evaluator and the administrator or educator. There is often a communications gap between the two that renders the use of evaluation far less effective than it could be. This gap might be narrowed by appropriate training on both sides. Executives and program staff could benefit from greater knowledge of the language of evaluation and how evaluations can be used. Short training sequences on such topics might be developed and made routinely available to new staff. For the evaluator, who often lacks experience in program management or delivery, exposure to the problems, procedures, and constraints of federal education programs would be similarly beneficial. In addition, training should be directed to improving both the interpersonal and the communication and reporting skills of the evaluator so that evaluation information is conveyed as usefully as possible.

A third type of training is needed to assure a minimally adequate level of skills for persons newly assigned to evaluation responsibilities and to allow others to keep up with the field. Despite the entry into the field of many individuals without the requisite skills and the rapid development of evaluation techniques, which makes once-adequate skills obsolete, training in evaluation training is currently inadequate or unavailable. The Committee is less interested in the number of new graduate students recruited to the field

than in improving the skills of current performers and users. Sufficient numbers of staff trained in either rigorous evaluation methods or in research have never been available. As a consequence, evaluation is currently practiced by people with almost every type of background possible, including many with no more preparation than that of classroom teaching. These practicing evaluators need opportunities to upgrade and improve their skills. (See Appendix C for details on training needs among local personnel and on some possible programs.) Insofar as new evaluators continue to be recruited, graduate-level training programs for evaluators will continue to need support. In part, such training would occur automatically through greater participation of the academic sector in evaluation work sponsored by the Department.

The suggestions in this recommendation require the funding of extramural training and fellowship programs. One channel for such programs might be the Assistant Secretary for Educational Research and Improvement, either through the Office of Dissemination and Professional Improvement or through the National Institute of Education, which already runs a program to increase the participation of women and minorities in educational research and development (R&D). Congressional authorization for such programs already exists, at least for NIE, in the 1980 Higher Education Amendments (P.L. 96-574), and in the Special Projects Act, though the latter requires that Congress be notified before a program is initiated.

Interorganizational Complexities

There is an important difference between most social science research and evaluation. In most research, control of a study is mainly in the hands of the researchers: they decide what to study and how the research is conducted. Even when action sites like schools are involved, the researchers select them on the basis of the intended research design, and if some sites are unwilling to cooperate, others can be substituted. The funding agency's role is usually limited to negotiating grant amounts and requiring nominal progress reports.

In evaluation, the researchers share control to a considerable extent with two other parties--the

sponsoring agency and the program or action agency. First, the sponsor sets conditions by designing the RFP that solicits the evaluation, including the level of effort, the scope of work, the types of issues, the research design and measures that are to be used, and the timing. Second, the nature of the action program itself imposes constraints, including how funds are allocated within the program, how far along it is in the implementation process, how much freedom is given to individual sites to carry out their own miniprograms. Third, the research team must work with a specific set of action sites. In order to establish workable relationships with action sites that may be reluctant participants, the researcher must provide a set of quid pro quos, such as collecting data not necessarily relevant to the evaluation study but wanted by people at the site, providing technical assistance, or carrying out special analyses. Moreover, neither the action site nor the sponsor is a monolithic entity, and different requirements and constraints may be imposed by different organizational units within each. Of particular importance is the increasing fragmentation of responsibilities within federal executive agencies (the usual type of sponsor), in which at least three parties may have some influence over the design and conduct of research: the project monitor for the evaluation study itself (and the cognizant evaluation unit), the program manager and responsible office for the program being evaluated, and the contracts office. The resulting context for evaluation is depicted schematically in Figure 2 (see Yin 1980).

The quality of evaluations is subject to the marked constraint imposed by the need for researchers to work within these interorganizational complexities: each decision has to be negotiated and agreed to by a number of parties. If nothing else, the process of arriving at compromises acceptable to all parties is time-consuming, often to a degree that makes the original study design no longer feasible; this is especially true during the procurement phase and the implementation phase.

The low participation of the academic sector in evaluation work should not be surprising, even though academic organizations represent the largest single group of performers of all educational research (Appendix B:Table B-4), because of the process by which evaluations are procured by the federal government. That process has become more and more complex over the decade of growth in

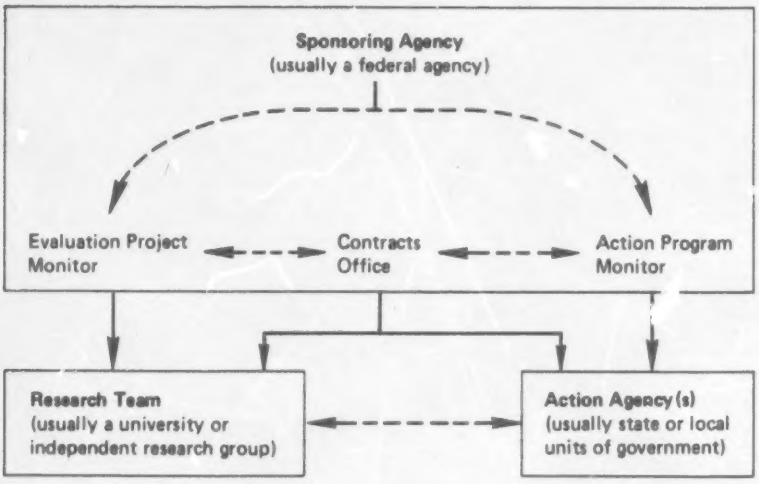

FIGURE 2 The interorganizational complexities of evaluation research.

evaluation funding. Requests for proposals (RFPs) have become longer and more detailed: in addition to spelling out basic design, methodology, what to measure and how to measure it, they may specify the sites to be studied, the data elements to be analyzed, and the time intervals for different collection steps. Responders have little freedom to formulate research approaches they consider more appropriate, let alone to reframe evaluation questions. Moreover, the average response time allowed hardly permits such luxury: for eight of the ten RFPs issued for new studies in fiscal 1980 by the Office of Program Evaluation (the central evaluation unit for the Department of Education), proposals were due only 1 month after issuance of the RFP; for the other two RFPs, proposals were due in 6 weeks (see Table 1). The proposed length of time for these studies ranged from 18 months to 2-1/2 years and their projected cost ranges from $150,000 to $2 million. The largest of these studies, which comprises a whole series of substudies of the implementation of Title I at the state and local levels, is estimated to take 2-1/2 years and cost $2 million. The RFP for this study was issued on July 23; proposals were due 29 days later, on August 22.[7]

TABLE 1 Milestone Dates--Fiscal 1980 RFPs--Office of Program Evaluation

	Work Statement First Draft to GPMD[a]	Work Statement Final Draft to GPMD[a]	RFP Issued	Proposals Due (Closing Date)	Contract Award
Development of bilingual evaluation models	1/31	2/13	3/6	4/7	6/27
Assessment of Women's Equity Act Program	2/12	2/22	3/14	4/14	6/30
Description of state management practices in ESEA Title I	3/12	3/24	4/25	5/27	6/30
Assessment of the Strengthening Developing Institutions Program	3/31	6/3	6/25	8/5	9/30
Evaluation of Basic Skills Improvement Program	3/26	6/5	7/1	8/4	9/30
Management studies of federal education programs	4/9	6/20	7/10	8/22	9/30
Evaluation of impact of Part A of Indian Education Act	4/30	6/25	7/18	8/18	9/30
ESAA-funded activities and Management Information System	5/27	6/13	7/3	8/4	9/30
Description of ESEA Title I district programs since 1978	5/30	7/1	7/23	8/22	9/30
Assessment of ESEA Title I Program for Handicapped	5/30	7/7	7/23	8/26	1981[b]

[a]Grant and Procurement Management Division.
[b]Originally planned for 9/30/80, postponed until fiscal 1981.

Tight timetables for preparation of major evaluation proposals are the rule, though the reasons vary from year to year. In 1980, the cause was a complicated internal planning process combined with the need to expend evaluation dollars during the fiscal year in which they were appropriated. Evaluation plans submitted by the Office of Program Evaluation in the spring of 1979 were not approved until January of 1980; some studies were not approved until May. Therefore, except for two RFPs that had been held over from fiscal 1979, no work statement could be completed until March, and a number were delayed until June or July by further review within the Grant and Procurement Management Division, the Department's contracts office. Thus, seven of ten planned awards for new studies were not scheduled until September, at the very close of the fiscal year.

Institutions whose business is based on federal contracts resulting from RFPs and who have considerable staff resources assembled at any point have an obvious advantage when responses must be made in such a time frame. The recent change in the federal government's fiscal year has positioned many complex procurement actions in the summer quarter, a period during which academic institutions are even less likely to be able to respond quickly. Contract records substantiate Sharp's findings (Appendix B) that universities and small-scale performers are largely shut out of the types of studies ($100,000 and over) that have been in favor. Of 84 contracts for evaluation and planning awarded by the central unit in 1979, only 1 went to a university, in the amount of $350,000 of a total of $21,526,089 in awards. On the other hand, one for-profit firm received four contracts for a total of more than $5 million. Nineteen contracts to three private firms and one large regional laboratory (also a private corporation)[8] accounted for 50 percent of all funds awarded. Through their success in responding to evaluation RFPs, the private performer organizations have been able to accumulate "large, sophisticated, multidisciplinary staff which are very knowledgeable about the major educational issues of the day" (Sharp, Appendix B:241). Whether current procurement procedures with their tight deadlines and enormous response burdens serve to deploy effectively the talent pool in even this limited domain is open to question. The reviews of evaluation proposals cited earlier in this chapter are not reassuring about the quality of responses elicited by the procurement process.

Constraints operate not only during the procurement process and original design phase, but also during the execution of any study. The first obstacle after a study is launched is to obtain clearances for data collection instruments. Clearance procedures (described in greater detail in Chapter 5) may take 5 to 6 months. Three of four different bodies are involved in the process, looking at the study design, the data collection instruments, and the analysis plan from a variety of perspectives: burden on respondents, technical quality, need to know (defined as being required by law), and economic impact. Not infrequently, research designs and instruments that are the product of experts and that have been pilot tested are changed by reviewers who do not have equivalent expertise or field experience. If a study is to be done at all, many compromises have to be made along the way by the contractor and federal monitor.

In 1978, a new requirement was added to the clearance process, namely, that all test and data collection instruments to be used in a study must be described in the Federal Register (and available on demand) by February 15 previous to the school year in which the information is to be collected.[9] This requirement, when added to all the other clearance machinery, so compresses the time available for development of instruments and questionnaires that quality takes a back seat to doing the study at all. It also severely limits the possibility of making changes as a result of conditions in the field or as promising lines of inquiry develop during the course of a study. The added costs engendered by keeping key staff who are essentially unproductive as they await clearance to go into the field squanders time and money that could have gone into improved design, data collection instruments, and analysis.

Even past the hurdles of clearance, a funding unit exercises great influence over the nature of evaluation studies through the monitoring process. When unexpected conditions arise that may require changes, such changes will be affected by agency officials because of their active role in approving or rejecting requested modifications. Decisions may be slow in coming, since most of them will require agreement among the three internal agency parties involved (evaluation monitor, program manager, and contracting officer). Agency officials and performers have to understand and resolve the tension between necessary changes in direction and

timely delivery of an evaluation study; creative skills are required to negotiate such tensions successfully without impairing the quality of the study. In some cases, it may be more important to deliver findings on time than to ensure that the results are as methodologically rigorous as possible. The balance between adequate agency procurement and monitoring procedures and creativity needed from the field to produce high-quality evaluations has in recent years swung heavily toward agency control and, within the agency, to control by contracts and grants management specialists rather than by technical evaluation staffs. The three recommendations below are aimed at introducing greater creativity and competence into the evaluation process during three stages: procurement, while a study proceeds, and after completion.

Recommendation D-5. The Department of Education should structure the procurement and funding procedures for evaluations so as to permit more creative evaluation work by opening up the process and allowing a period for exploratory research.

The increasing constraints imposed as a result of the greater visibility of evaluations and the attempts to control their management and process have limited contributions from the field of evaluation. These constraints have reduced the opportunity for infusing novel approaches into either programs or evaluations. They have also reduced the potential of evaluation to contribute to the policy process.

The more complex the evaluation, the less likely is it that anyone can spell out ahead of time the best methods for addressing the questions that the evaluation is designed to answer. The current RFP process in particular ignores this fact. The Committee believes that this process can be made more flexible. An RFP often presumes some things about the program are known when they are not. This can range from something fundamental--e.g., existence of the program at a site--to something trivial--e.g., existence of records. RFPs also often downplay the possible effects of interorganizational relationships on the evaluation process. In addition, problems and issues in executing the evaluation are not anticipated, and many cannot be anticipated. The unknowns or unknowables suggest that an RFP that attempts

to be specific is bound to be inappropriate. Therefore RFPs should include a period of exploratory research before the evaluation is undertaken in order to frame questions properly--with the aid of the consultation process suggested in Recommendation D-6 below--and to figure out what the unknowns are. RFPs should also provide for side studies that are research oriented to illuminate questions that emerge during the evaluation and that should be answered if the evaluation is to be done well.

Precedents for encouraging exploratory research before an evaluation is undertaken exist: James Coleman had the benefit of 1 year of planning for his national longitudinal study of the high school class of 1980 (Coleman et al. 1979). That planning included intensive research on what kinds of policy issues could be addressed in the future using such data. As another example, the NIE compensatory education study (National Institute of Education 1976) had 6 months to clarify questions before the study was initiated.

Mechanisms for providing opportunity for expertise in evaluation to improve the quality of evaluations include:

- inviting bidders to specify alternative methods of evaluating the program at hand and how such methods would be tested, in addition to asking that they meet formal RFP requirements;
- inviting bidders to design small side studies that can lead to durable general statements about particular approaches and providing support for those side studies found to be meritorious;
- assuring that sufficient time is available for developing proposals for an evaluation project, at least 6 months for complex evaluations;
- issuing RFPs for pre-evaluation assessments that define the problem better, lay out alternative approaches to evaluation and how they might be assayed, and so forth.

Beyond improving the RFP process, there are other steps the Department should take to introduce greater creativity. The procurement process now used by the Department to obtain most evaluation studies virtually limits all contract applications to organizations that have the capacity to assign full-time specialists who can be immediately responsive to RFPs. Under this system, the evaluation program is effectively cut off from the academic community, which has made major contributions to

the theory and methodology of evaluations. It has been argued that academic researchers are disinterested in applied research such as evaluation, since they are more highly rewarded for basic research, and that the disciplinary structure of universities does not lend itself to policy-relevant research. Though there is some justification for these views, one cannot conclude that universities will not and should not participate in carrying out evaluations. The academic world is no more monolithic than any other community; within many universities, there are institutes or centers created precisely to respond to the interdisciplinary challenges of applied social science research. In addition, as funding for basic research has leveled off or even decreased, academic researchers have become more interested in applied work. The dismal statistics on lack of participation by universities in evaluations funded by the Department cannot be attributed solely to the unwillingness of universities to participate.

By depending almost entirely on the competitive RFP procurement system, the Department is not able to take advantage of the creativity, objectivity, long-term commitment, and the cumulative knowledge and experience of the academic community. Nor can it attract participation by minority researchers, whose perspectives would enrich the questions and methods of evaluations, who are not able to assemble the resources needed for large studies in the time provided. Local and state agencies also cannot often contribute at the national level, even when they have the capability for high-quality work, because of the site requirements in many RFPs. Among the mechanisms for funding evaluations that can be used to open up the process and improve quality are unsolicited proposals, sole-source awards, 8-A contracting, cooperative agreements,[10] basic ordering agreements,[11] and grants.

The Department should consider unsolicited proposals in order to encourage creative and innovative ideas that may be lost through the RFP system. Academic experts who have made significant contributions to the evaluation process should be encouraged to submit proposals that attempt to break new paths in theory or measurement of the effectiveness of education and other social programs. It is possible to carry out a competitive program of grant awards for unsolicited proposals in specified areas, as practiced by the National Institute of Education.

When the Department wants to take advantage of the expert knowledge of an academic scholar who may have made a significant contribution to a particular subject area, it should have the authority to solicit a specific proposal. Some members of the academic community have unique knowledge and skills that are not found elsewhere. The Department should have the authority to offer a sole-source award to a scholar in the field of evaluation whose background, experience, and expertise cannot be matched. The use of this mechanism will help to open up the system to new ideas and contribute sorely needed flexibility to the Department's evaluation activities. The Committee is fully aware of recent criticisms of consulting and sole-source procurement (U.S. General Accounting Office 1980a, Gup and Neumann 1980, but see Wilson 1980). We believe, however, that the limited and judicious use of this mechanism can produce gains that far outweigh the risk of occasional abuse. When abuse does arise, it should be dealt with on a case-by-case basis, not by abandoning a useful procurement mechanism.

The restrictiveness of the RFP process also contributes to the very low use of minority firms by the Department in securing evaluation contracts. Such firms are usually small and have limited staff and so they cannot respond as quickly to RFPs as the larger for-profit organizations that now dominate the evaluation field. The 8-A contracting process seems to be seldom used as a way of involving more minority firms, probably because evaluation studies have tended to be large scale and 8-A firms are small. The issue of equal educational opportunity that calls for the greater use and involvement of minority researchers will only be resolved when more flexibility is built into the design of studies and the contracting process.

Cooperative agreements ought to be the mechanism of choice when the principal purpose of the award is to benefit local or state operation of education programs authorized by federal statute. Such agreements may also be used when substantial involvement is anticipated by the federal agency as well as by the recipient of the funds. Studies carried out by a state or local agency to document program processes, improve program implementation, or test program alternatives are intended to benefit the locality, but they can also help improve the program nationally. The former Department of Health, Education, and Welfare had an internal decree against

cooperative agreements, though they are used by such other agencies as the National Science Foundation and the Law Enforcement Assistance Administration of the Department of Justice. The Department of Education should exploit the potential of this procurement mechanism. Cooperative agreements are an obvious vehicle for encouraging local and state agencies that have the capacity to undertake evaluation work aimed at program improvement.

Basic ordering agreements are a particularly useful mechanism for planning or evaluability studies and other limited work with a short time horizon. The Department could obtain greater flexibility and faster turn-around time by maintaining lists of qualified performers generated through periodic requests for qualifications (RFQs). These performers could then be called upon for limited studies.

Grants are a particularly appropriate mechanism when creativity from the performer is important. The Committee urges that the Department institute at least two grant programs, one for local and state agencies (see Recommendation C-3 below) and a small grants program ($50,000-100,000 per grant) to allow university researchers and others to pursue evaluation questions in designated areas of interest to the Department. The small-grants program should be run in conjunction with the research program at NIE suggested in Recommendation D-3 (in Chapter 2). Research grants are often considered to be appropriate only when the primary audience is to be other researchers and hence are considered inappropriate for policy-related reseach. But grant programs do not have to be untargeted, as is demonstrated by the well-defined grant programs developed by the various study sections of the National Institutes of Health and of Mental Health. Not infrequently, the research is both applied and immediately applicable, as in the case of the restorative materials program funded by the National Institute of Dental Research.

The state and local program we are recommending could be in the form of grant awards or cooperative agreements. The purpose would be to allow selected agencies to study their own federally supported programs by documenting what actually goes on in the program at the classroom or school level, assessing the effects of the program or some of its components, and testing alternative program interventions. There should be national or regional competitions for each large federal

title and one catch-all category for the small programs. Panels of outside experts (including nonfederal researchers) should evaluate proposals. Proposals should be required to state how results of a study will be incorporated into pertinent local or state agency operation. The Department should use existing mechanisms like state agency dissemination arms, assistance centers attached to various federal education programs, or the National Diffusion Network (NDN) to disseminate and apply findings nationally.

The Committee's recommendation that a greater variety of procurement methods be employed does not suggest that the use of RFPs be drastically reduced. We recognize the need for organizations that can mount nationwide surveys, carry out complex tasks, and have available large numbers of experienced analysts. Our call for flexibility in the procurement process, we believe, will reduce the sterility of the evaluation system through the introduction of new ideas and will permit increased consideration of different perspectives that can contribute to the educational system.

Review

A common defect in past evaluations has been that only a small group of people in the agencies and among the contractors are talking to each other; they are doing things in standard ways and perhaps missing new developments in technique or new ways of evaluating or running programs. The results of evaluations are then made available and often taken on faith by the educational community. Since evaluation is a difficult and ambiguous activity, the evaluation process would, in the Committee's view, be improved by opening it up--even if this results in longer time frames.

Recommendation D-6. All major national evaluations should be reviewed by independent groups at the design, award, and final report stages. Review groups should include representatives of minorities and other consumers as well as technical experts. The results of their review should be made broadly available.

Insofar as it is feasible, such reviews should also be conducted for major state and locally sponsored evaluations.

This recommendation has three faces to it: improving the technical quality of evaluations, ensuring early contribution and involvement from those most affected by the programs (beneficiary groups, teachers, etc.), and making use of the findings more likely through public exposure and understanding.

For major national evaluations of important programs, the evaluation plan should be publicized by the agency before the project begins. When the RFP process is used, the agency itself should solicit as much outside advice as possible, thorough development of concept papers, planning conferences and other pre-RFP activities. Proposal review should include experts from outside the sponsoring agency. After award of a contract, the contractor also should solicit the views of outsiders. Some questionable assumptions or pedestrian analytical approaches might be amended at this point. Then, when the project is done, outsiders should again review the work, its philosophical perspective, its technical ambiguities, and its policy implications. Such outside review would be facilitated if researchers were careful to spell out, in final reports, the limitations of their research: ". . . what went wrong, what couldn't be done, what that means for the conclusiveness of the findings and . . . for their generalizability to particular populations" (Chelimsky 1978). Later on, the data from the evaluation should be made available to others for reanalysis. If evaluations are controversial, either because of their execution or because of their recommendations, this process will allow such controversies to be aired. All of the results of this interchange, the evaluators' reports and the comments of outsiders, should then be made broadly available.

There may be several ways to ensure adequate input and broad availability. One approach worth exploring is for the Department to sponsor an annual conference on important evaluations that are at various stages in the process--design, first completion, reanalysis. If this were done, the educational community would know where to look for the latest evaluation results, criticisms, and reanalyses, as well as for information about impending work.

In line with previous remarks about the subjective nature of evaluation quality, opening up the evaluation process should provide mechanisms similar to those employed by such journals as Consumer Reports with regard to the market for consumption goods. The Department

should not be the arbiter of evaluation quality. But it can make sure that all evaluations are subjected to the scrutiny of outsiders so that the educational and beneficiary communities at large, as consumers of evaluation information, can see the pros and cons, the ambiguities and questions, and make up their own minds. In the long run, this greater information and exposure is the surest way to make certain that evaluations will consider the perspectives of parties at interest, will be of high quality, and will not be ignored.

This recommendation implies that evaluations will not generally result in an immediate consensus on the value of an education program. To a certain extent, this lack of consensus is a fact of life in the field of education, and the Committee would be remiss if it did not warn Congress and the Department of Education of this fact. But we see in the suggested mechanism some ways of trying to resolve the real controversies. As part of a subsequent reanalysis process, conference participants might try to agree in advance on further analyses to be done and what they could show. In that way, there might be a greater chance of arriving at agreement on the results of the second round of tests and analyses. The same logic also applies to the idea of presenting evaluation plans: it is likely that when more voices are heard early on, less acrimony will be heard later on.

Recommendation D-7. All statistical data generated by major evaluations should be made readily available for independent analysis after identifying information on individual respondents has been deleted.

When possible, ethnographic data and case study material, similarly treated to protect privacy and confidentiality, should also be made available.

The data generated in most large-scale evaluations are an expensive resource and should be treated as such. They can be reanalyzed in the interests of critical appraisal of the original evaluation and in the interest of advancing the theory of program testing and the state of the art in evaluation. They can be useful for pedagogical purposes in university training and for staff development in government and in state and local education agencies. Mechanisms for ensuring that the data are available for reanalysis include: provision of support for documentation, storage, and dissemination of

data in major evaluation contracts; creation of explicit agency policy on access to data; and statutory requirements for independent review and, where appropriate, reanalysis of original evaluation data.

Independent reanalysis of data generated by evaluations should capitalize on procedures that avoid compromising the privacy of individuals or the confidentiality of information. Audit agencies such as GAO, or independent researchers, may have a legitimate interest in verifying quality of data generated in an evaluation. The process need not and should not breach promises of confidentiality made to individual respondents or invade their privacy. A report commissioned by the GAO on assessing evaluation quality (Social Science Research Council 1978) recognizes the additional needs of avoiding needless disruption of research and harassment of respondents. The report recommends several alternatives to the usual way of reinterviewing respondents including: independent sampling of the target population to compare statistical results obtained by the auditor with statistical results obtained by the evaluator; use of evaluators independent of both original evaluation staff and audit staff for reinterviews; drawing a subsample of the original sample for reinterview to minimize disruption of the research; and other strategies. In many intances, regathering of primary data is unnecessary: review of design, execution, and analysis is sufficient for judging the quality of major program evaluations (see also Hedrick et al. 1979). The critical point is that original evaluation information not be withheld by researchers, sponsors, or any other parties; the more such information is available, the less intrusive can be the approach taken in reanalysis and critical appraisal.

STATE AND LOCAL ACTIVITIES

Funding and Independence

The amount of federal money spent for evaluation activities at state and local levels is not inconsiderable. Webster and Stufflebeam (1978; see Appendix C:Figure C-3) found that 35 large urban school districts spent a total of nearly $34 million on research and evaluation, of which $21 million (or more than two-thirds) was federal funds. But funding for

evaluation varies widely. The size of local education agency (LEA) budgets for the evaluation of Title I programs has ranged from 0 to nearly $1 million for programs that have a total budget of more than $100,000 to $52 million, respectively (Drezek et al. 1980; see Appendix C). There is also great variability for different programs: for example, an average of 1 percent of program funds is spent at the local level for evaluation of P.L. 94-142, the Education of All Handicapped Children Act, and 7 percent for ESEA Title IVC, innovative practices and curriculum. Much of the evaluation money made available through federal programs is controlled by the state or local program administrators. This tends to put the evaluators in competition with program administrators for resources. Evaluation projects may be approved or disapproved on the basis of their acceptability to the officials who run the programs. Bernstein and Freeman (1975) suggest that it is advantageous to have the program staff play a role in the research process, preferably by having both the program and the evaluation units be part of the same overall organization. But unless an evaluation unit can operate with some independence within the overall organization and is given direct access to the leadership of the organization, it cannot (and will not) be trusted to produce credible work.

Recommendation C-2. Congress should separate funding for evaluations conducted at the state and local levels from program and administrative funds.

The first reason for this recommendation is that such a separation will allow greater accountability for how evaluation money is being spent and who spends it. The current arrangement for most programs is to have evaluation money come from local program funds or from state administrative funds. No separate accounting is necessary. This makes it impossible to know how much of the federal money potentially available for evaluation is actually used for that purpose at the state and local levels. It is therefore impossible to judge whether inadequate performance of specified evaluation tasks comes about through lack of funds, inadequate training, or other factors.

The second reason for the separation is to introduce greater integrity to state and local evaluations. Under

present circumstances, whatever amount of money is invested in evaluation is, in too many instances, controlled by those who administer and run programs. This puts the quality and credibility of evaluation activities in jeopardy. As long as program administrators control evaluation funds, resulting evaluation activities will be suspect. If evaluation is to be an independent function that can provide an outside view of program operations and effects, it must be separately funded.

As a specific way of accomplishing the separation, Congress may wish to consider a required percentage set-aside for each program that would be devoted to evaluation activities at the state and at the local levels, with due consideration of thresholds below which no activity can be carried out adequately. Such a set-aside provision should be accompanied by reporting requirements that account for the money spent and that summarize evaluation results and their application. Over time, it will then be possible to judge whether the investment in evaluation is yielding the desired results in terms of program monitoring and improvement.

Capability

The competence and resources of the personnel charged with evaluation responsibilities constrains their ability to produce evaluations of acceptable quality. Only some school districts, particularly the large urban or suburban systems, have well-trained and sophisticated evaluators. For many smaller agencies with limited resources, staffing is inadequate for any of the complex evaluation tasks such as process or impact assessments. As Holley (Appendix C:258) notes:

> In most states certification standards are applied to personnel in federal programs. For example, a counselor, administrator, or supervisor must be certified to fill those roles in most states. In general, evaluators are not certified and no such standards are applied to the personnel filling the role of evaluator. In some LEAs and SEAs, the federal program director or coordinator may bear full responsibility for evaluation and even in agencies with substantial evaluation units, small federal evaluations may be completed by

program staff. Typically, where program staff are given the responsibility for evaluation, they will have neither training nor experience in evaluation methodology, measurement, nor statistical analysis. The author has observed many small school districts in which the person charged with Title I program evaluation is a reading teacher, not only with no training in evaluation, but with a weak background in mathematics.

Even when third-party evaluations are used, this does not ensure either lack of bias or high quality, since school personnel charged with selecting contractors may or may not apply appropriate selection criteria. Moreover, the competency of personnel in contracting organizations used by local systems varies as much as that in the systems themselves.

State agencies, in addition to carrying on their own mandated and discretionary activities, are also charged with a variety of responsibilities with respect to evaluations carried out by local school systems. Depending on the legislative provisions in a given federal program, these may include "monitoring the compliance of its districts with federal evaluation guidelines, aggregating, analyzing and reporting data on the state-wide impact of federal programs, and ensuring that LEAs receive proper technical assistance in program development and evaluation efforts" (Pion, Cordray, and Boruch, Ch. 4:7 in Boruch and Cordray 1980). The size and capability of evaluation staffs vary considerably from state to state, and it is not necessarily proportional to the school enrollment or to the number of federal programs administered. Many states do not have the capability to do more than minimally comply with federal requirements, that is, forwarding the data supplied by the local agencies.

<u>Recommendation C-3. Congress should institute a diversified strategy of evaluation at the state and local levels that would impose minimum monitoring and compliance requirements on all agencies receiving federal funds, but allow only the most competent to carry out complex evaluation tasks.</u>

The Congress should require the Department of Education to submit detailed program performance data.

Therefore, all state and local agencies receiving federal funds for education programs should be required to provide accounts of the allocation of program funds and of program coverage. When specific services and procedures are mandated, these too should be assessed for compliance with the law (implementation accountability). To accomplish this requirement, it may be necessary to spell out in legislation dealing with evaluation activities the resources, coverage or target groups, and program services to be reported on by each recipient unit (local education agency, state education agency, community based organization, or other public or private agencies). Congress should also require that the Department institute quality control procedures that will ensure usable and comparable data on program funding and coverage.

Evaluation tasks that go beyond accountability questions--for example, the assessment of educational impact or the identification and testing of alternatives that might lead to improved programs--should be a selective activity rather than imposed on all, regardless of competence and funds available. This recommendation is not meant to suggest that creativity in providing effective education cannot be found in school systems with limited resources. Inventive teachers and administrators have always found ways of applying the lessons learned through experience to their classes and their programs, but they do not do it through formalized evaluation (David 1978). The task of understanding promising approaches and applying such understanding to program improvement at various sites is an extremely complex one that needs considerable investment of fiscal resources and the skill of highly trained people who are unlikely to be available to every school system and state agency in the country. Nor is it necessary that every site carry out that type of evaluation. If more were known about how to provide effective services through studies carried out at a limited number of sites and if school systems were then encouraged to try those alternatives that appeared most promising, program improvement could be expected.

The description by Holley (Appendix C) of three alternative means of funding local evaluations documents the utility of providing discretionary funds on a competitive basis for program improvement. Congress may wish to consider authorizing a grants program for school systems that would allow funding of the most promising

proposals for program improvement based on evaluation of program alternatives that appear to be effective in a given context (see Recommendation D-5 above).

Recommendation D-8. The Department of Education should explore alternative approaches to technical assistance for state and local evaluation needs.

The technical assistance needs of state and local agencies are not uniform. They vary with the size of the agency, the sophistication of the agency's evaluation staff, and with the complexity of the federal program activity in the agency. The regionally based technical assistance centers associated with Title I are one approach to meeting such needs. Whether the TACs are the best form of assistance for all agency types and sizes and whether the services they provide are adequate to all needs should be explored more extensively.[12] For example, the development of technical assistance capabilities in state agencies that also have authority and responsibility for supervising local activities might be a more reasonable and effective alternative. The National Institute of Education used such a strategy in building dissemination capacity within state agencies (Raizen 1979). Or the support of state, regional, or national networks of evaluators might permit the joint exploration of complex problems for which solutions do not yet exist (see Appendix C). Or seminars that bring together evaluation practitioners with representatives from a number of different disciplines could increase the awareness of alternative research techniques that might be brought to bear on complex problems and issues.

Technical assistance should also encompass organizational and personnel questions. Evaluators are often recruited and hired by people with little understanding of the skills required in the practice of evaluation. Personnel officers may, for example, be unaware of the types of degree they should require or of the types of candidates to interview. Consultants are hired to do evaluations, but their qualifications and training must frequently be reviewed by staff members unacquainted with evaluation. The relationship of evaluators or an evaluation unit to program administrators, executives of an education agency, its governing board, and public groups are often not carefully considered or are submerged in more powerful

carefully considered or are submerged in more powerful organizational considerations. Technical assistance in the area of evaluation organization and personnel policies could draw on much work done already by some state and local agencies as to optimal institutional arrangements, personnel requirements, and procurement policies for extramural work.

In particular, state and local agencies need to be aware of the desirability of separating the evaluation unit from program administration. Especially in the case of impact assessment, there is an obvious conflict of both intellectual and monetary interest. Evaluators should in general be outside evaluators, and evaluations should not be controlled by the program administrators. The case is more ambiguous for formative evaluations--those that are aimed at improving programs. Responsible program administrators should be doing this kind of self-evaluation as a matter of course, but there are also powerful advantages of having outsiders do this kind of evaluation: outsiders bring a fresh and unbiased view and are likely to see new ways of solving problems in program administration and new approaches for improving program benefits. They are also not constrained to cover up inadequate performance, as internal evaluators may be inclined to do. The best approach may be to encourage continuing in-house evaluation efforts, but also to encourage agencies to make greater use of qualified outside evaluators. Technical assistance should help agencies organize their evaluation activities in such ways that they can derive the maximum benefit from their (and the federal) investment in this area.

Recommendation C-4. Congress should require an annual report from the Department of Education on all evaluation expenditures and activities, including those at the state and local levels.

The current evaluation report delivered to the Congress annually should be expanded to cover all the evaluation activities within the Department as well as those carried out by state and local agencies with federal education funds. Past annual reports have concentrated on the activities of the central evaluation unit; they have not been comprehensive with respect to evaluation activities carried out elsewhere in the

Department. More importantly, no analogous report is now required of evaluation activities carried out at the local and state levels: even figures on federal dollars spent on evaluation at these levels are unobtainable, let alone any substantive account of either mandated or discretionary activities. It is therefore impossible to discern to what effect evaluation dollars are used at these levels except through special studies. Until more complete accounts are available of the total extent and nature of the activities carried out, the quality and management of evaluation cannot be improved.

The Department's report should specify the amounts of federal dollars spent for evaluation at the national, state, and local levels, and breakdowns of funding should be given by type of activity. Summaries of studies under way, findings and critiques related to completed studies, and their application to improvement of the substance and management of programs should also be included in the report. In addition, Congress may wish to request a brief report or special section on "What Has Been Learned," which draws from all relevant sources of knowledge--including evaluation and research not supported through federal education funds--to consider how programs can be made more effective through changes in legislation, management, or program strategy.

NOTES

1 The cited studies cover several social service fields. Evaluations in education may in fact have a better record than some others. Rezmovic (1979), in summarizing reviews of evaluation studies in the criminal justice field, finds that there are very few if any studies without serious shortcomings that jeopardize the credibility of study results. She cites Logan (1972), who examined 100 correctional research studies and found not one that met minimal methodological requirements for testing effectiveness.

2 We use Sharp's definition (see Appendix B) of "private-sector performers": all those not connected with a university or with a public education agency, local or state.

3 Major performers are defined as those that spend $1 million or more on educational research and development.

4 The term 8-A refers to a special form of noncompetitive awards. An 8-A firm is a small for-profit business concern that is owned, controlled, and operated by one or more person(s) who are socially and economically disadvantaged. To be eligible, the concern must have submitted a business development plan to the Small Business Administration (SBA), which must have approved it for SBA assistance. An 8-A firm can be selected to deliver goods or services to the federal government without having to compete with other firms.

5 A resource list compiled by NIE of minority firms competent to do R&D work in education during that period contained 185 entries; about two-thirds were 8-A certified.

6 Some of these programs are the Graduate and Professional Opportunities Program (GPOP) in the Department of Education, the Minority Fellowship Programs in NIMH, the Minority Postdoctoral Fellowship Program and the Women and Minorities Program in NIE, the Minority Access to Research Careers (MARC) in both NIH and ADAMHA, the Minority Fellowship Program in NSF, and the Health Center Opportunities Grants (HCOG) in HRA.

7 This information, including the dates given in Table 1, was provided by Priscilla (Pat) E. Dever, Administrative Officer, Office of Program Evaluation, U.S. Department of Education. We are grateful for her help and patience in responding to our inquiries.

8 The 16 regional educational laboratories and R&D centers have a special relationship with the federal government through which they receive core funding outside the competitive process, some of it for evaluation studies, though they may--and several do--also bid on RFPs. Of ten $5-million-plus performers of educational R&D, two are regional laboratories; nearly all these institutions fall into the $1 million and over or "major performer" category. Because they have long-term relationships with the Department, they are in a favorable position to receive contracts for evaluation work.

9 This provision was enacted at the behest of state education agencies so that they could plan adequately for their own data collection systems. It is questionable, however, whether evaluation studies that gather one-time information (even if collected more than once, as in pre- and post-testing or in

longitudinal studies) and are usually done on a sample basis would affect these data systems to any extent.

10 A cooperative agreement is a type of award used as an alternative to a contract when a project requires substantial involvement of the sponsoring federal agency during project performance. Substantial involvement may be necessary because the project is technically or managerially complex or requires close coordination with other federally sponsored work. Examples are policy studies, projects requiring complex subcontracting, large curriculum projects, and evaluations of federal programs. For a detailed definition, see P.L. 95-224.

11 A basic ordering agreement is a written instrument of understandings between the government and a contractor that sets forth negotiated clauses to be applicable in future contracts, including a description of supplies or services to be furnished and of the method for determining fees to be paid. This instrument is generally used in conjunction with a selected group of contractors found to be qualified to furnish the specified supplies or services when needed.

12 A recent evaluation of the TACs (HOPE Associates 1979:60) found diverse views of their effectiveness among state agency personnel. One of the reviewing panel's recommendations was that

> . . . the Office of Education begin to investigate, during the period of the next contracts for Technical Assistance Centers, the possibility of a future system that has flexibility to accommodate to: the diversity of state and local capabilities and needs, and also the enlarged objectives of Title I evaluation technical assistance, particularly including the uses of evaluation for local program improvement and the strengthening of local evaluation capacity.

4
Using Evaluation Results

A frequently voiced statement about evaluation is that evaluation findings are rarely used. Often this type of statement is followed by the criticism that few policies have been changed and few programs either terminated or started because of the findings from evaluation. Implicit in this criticism is a belief that "utilization" means direct and often immediate incorporation into policy and program. The criticism carries weight mainly for those who have a definition of utilization that comes close to making it a substitute for the political process. We do not take that position. In our view, utilization takes on a variety of forms, not all of them immediately evident.

Indeed, we maintain that the main goal that evaluation can rightfully espouse is that of being "useful": that is, evaluation-based knowledge is disseminated to those audiences that have a need or an interest in it, is presented in a fashion that is understandable to them, and is addressed to the policy questions that are relevant to them. Evaluation cannot and should not substitute for the political process. Nor can evaluators ensure that evaluations are used. The best one can do is to make sure that evaluation findings are available to those who might want them and that the findings address the issues of concern in an understandable and responsible way.

Because much of the difficulty with utilization centers around the differing meanings of that term, in the first two sections of this chapter we discuss the varieties of utilization and some of the limitations that constrain the use of evaluation findings. Next we

summarize the evidence on how evaluations actually are used and show that considerable use is made of evaluation results, even though evaluations rarely shape social policies in a sharp and immediately obvious manner. The next section discusses the research literature on how science-based knowledge is used and how its use can be enhanced; the final section identifies the various audiences for evaluation findings, their information needs, and what the Department might do to better serve those needs.

DEFINING UTILIZATION

"Utilization" has been used to cover a variety of things, a semantic imprecision that lies at the root of a common impression that evaluation results are rarely "utilized." One major source of difficulty lies in the failure to distinguish between dissemination and utilization. Another major source of difficulty is that "utilization" has been used to mean overt changes in social policy and programs as well as uses of evaluation findings that fall far short of changing social policy.

Dissemination and Utilization

It has been recognized for some time that dissemination of knowledge does not necessarily lead to its use, though it is a requisite first step.[1] For purposes of this report, dissemination of evaluation findings means the deliberate communication of knowledge derived from evaluation activities; utilization refers to the use of such knowledge when decisions are made about educational policies and programs. Such use may include instituting a change as a result of having considered the evaluation-based knowledge. However, "dissemination" is often used to mean or imply utilization and subsequent change: that is, utilization and change are viewed as an almost automatic by-product of communication. This use of "dissemination" is unfortunate and misleading because recent empirical studies on utilization and change make it clear that knowledge, however packaged and disseminated, has little compelling power in its own right (see, for example, Caplan et al. 1975, Caplan 1980, Berman and McLaughlin 1975-78, Human Interaction Research Institute 1976). These findings hold for

purpose-specific information such as program evaluations as well as for forms of knowledge for which the relation between knowledge production and intended use and audience is less obvious.

The distinctions between dissemination, utilization, and change are important to keep in mind. Dissemination, because it is largely under the control of evaluators and sponsors, can be improved by self-conscious efforts. Improvements in dissemination strategies can usually be made that, other things being equal, ought to lead to greater utilization and to change when indicated. But other things are generally not equal: the forces and events impinging on decisions about programs may be more powerful than evidence from evaluation activities. Moreover, such evidence is often couched in statistical terms that are not translated into terms having substantive meaning or that may not be substantively significant.[2] Steps can be taken to ensure wide and effective spread of information and thereby improve the likelihood of utilization, but we know of no means that can ensure utilization, let alone change.

Forms of Utilization

There is currently a very strong emphasis on using the results of evaluation for making specific decisions at a given time; for example, when legislative or budgetary decisions are anticipated or when changes in program regulation or management are being considered. Sometimes, this perspective is appropriate, as was the case for the NIE compensatory education study, which began with some specific issues and fairly well-defined problems (National Institute of Education 1976) and chose to investigate factors that could be controlled through changes in policy (Hill 1980). The desire of those who initiate and pay for evaluations (Congress, the Department, state and local governments) to obtain immediately applicable results is understandable, but it can lead to inappropriate expectations.

In particular, the grounds for decisions cannot always be specified beforehand. For example, funding decisions are sometimes declared to be the policy questions that the results of evaluations are to address. Yet funding decisions are generally made on a variety of grounds, many of which cannot be addressed by evaluations, as has been amply demonstrated by the history of impact aid,

Head Start, Follow Through, bilingual education and other programs that became popular with beneficiaries and service deliverers. A program may develop such strong constituencies that the results of evaluations become largely irrelevant to funding decisions. As another example, the evaluation of alternative compensatory education interventions used in Follow Through was to identify the most effective model for wide-scale implementation (Elmore 1975). It turned out, however, that there was more variation within models than between models; moreover, increased funding to permit increases in the program never materialized.

The possible decision issues also change over time in unpredictable ways. Turnover among federal executives is high.[3] Questions that are tied to the perspectives of an individual decision maker or of a particular administration may no longer be of interest when a new executive or administration takes over. Decisions also change as educational priorities change over two or three years, even under the same administration.

In short, while evaluation for specific decisions appears to be a sensible strategy to follow, such a strategy may be much wasted effort. The issues involved in a decision that is to be taken at some time in the future are not easily predicted. Hence an evaluation started today that is directed towards the specific decisions envisaged two years hence is just as likely as not to miss the mark because the issues in the decisions will have changed.

One implication of the above is that evaluations should seek out questions of lasting significance and provide knowledge that can be used and reused, knowledge that may be exploited in several different ways over time in addition to furnishing short-term information (Chelimsky 1977). Involved here are differences in types of knowledge application, i.e., knowledge for understanding versus knowledge for immediate action, sometimes also referred to as conceptual use (indirect impact on decision perspectives) versus instrumental use (direct, mechanical application) (Weiss 1977). To ensure the maximum utility of any major evaluation, it should address questions appropriate to both uses. Adopting this principle has consequences for the planning of evaluations (see Recommendation D-10, below).

A third use of evaluation can be called legitimization: the primary purpose of the evaluation is something other than to develop knowledge about a

program. The reason for initiating the study may be more important than the eventual results, such as meeting legal requirements for evaluation, demonstrating the objectivity of an agency's decision making, or supporting some particular point of view (e.g., the need for more program funds). Though such motives are not often overtly acknowledged, the use of information that results from such evaluation studies is not necessarily illegitimate provided valid data are reported and interpreted honestly.

Misuse and Deliberate Nonuse

One of the problems in defining the process of utilization is that not all study results ought to be used and that deliberate rejection or nonuse of results that are faulty or otherwise inapplicable is preferable to misuse. Misapplication of results is as much a negative consequence of evaluation as lack of application, and deliberate nonuse may represent rational decision making as much as does appropriate application.[4] The problem is that the deliberate nonuse after results have been carefully considered and dismissed for valid reasons is difficult to distinguish from the failure to use evaluation results for other reasons.

Aside from nonuse for valid reasons, it is important to distinguish between the misuse or nonuse that results from of lack of judgment and that which has as its motivation the suppression of valid information. Persons who may not be fully aware of the standards of quality that should be applied to evaluation studies may hail the results of faulted work and condemn on seemingly technical grounds quite well-executed studies. This lack of judgment calls for attempts to inform potential users of the standards by which various types of studies should be judged. The recommendations made elsewhere in this report on open and systematic review of evaluation studies should be helpful in judging quality. (Our recommendations on training in Chapters 3 and 5 are also intended to address this problem.)

Deliberate misuse or nonuse of evaluation studies is in many ways more difficult to deal with. First, it is difficult to detect motives. Second, it is not likely that persons deliberately abusing evaluation studies would be likely to be dissuaded by arguments based on

considerations of quality. The best that evaluators and the Department can do is to make sure through review of evaluations that those that are defective are clearly identified and that exemplary evaluations are also clearly identified. Full publicity should be given to the evaluation review procedure and its results.

LIMITATIONS THAT CONSTRAIN USE

Just as the definitions related to utilization are important to understand if one wants to improve the utilization process, so are the functions of knowledge within any agency or for individual decision makers, at whatever level.[5] Evaluation cannot and should not replace the political process. This means that an automatic translation of evaluation findings into policy decisions is neither desirable nor to be expected. Policy makers cannot override the ideological, political, and financial limits they face, though these limits are themselves subject to change over time, aided by the accumulation of knowledge. Decision makers and managers are not always able to take actions that seem to the researcher the "best" form of intervention or implementation. Both the feasibility and the acceptability of a change in public policy are as critical as science-based knowledge in determining the course of a decision (Ezrahi 1978). Thus a program that is feasible and effective but likely to arouse the resistance of significant constituencies, or that can be funded only at the expense of some other more desirable program, or that is liable to antagonize school administrators or teachers, is not likely to be adopted. Nor should it be, given that legislatures and public officials are expected to be responsive to such realities. There is no special democratic license given to the results of evaluation that allows such results to override the ordinary political considerations that surround education just as they surround other important areas of social policy.

So it is important that, from the outset of any evaluation, the range of options and political realities regarding timing, variables, and likely decisions be made clear by the likely users. Early collaboration between researchers and decision makers in planning the research, identifying variables, specifying time frames, and defining the problem under study will help toward wiser

and more profitable use of social science research, especially program evaluation, within the political context of social probem solving (see Recommendations C-1 and D-1).

Though we use the term "decision maker" in this report, we do not mean to imply that decisions about programs are made as if there were sovereign rulers in government. Yet evaluation reports are often written as if such individuals existed and were able and ready to act on evaluation findings and recommendations. As we noted above, the persons who initially ordered and collaborated in planning evaluations and their utilization may have moved on to other responsibilities by the time findings are available. Their successors often have less interest in or less understanding of the purpose of the evaluation. In addition, interests sometimes shift rapidly at the top echelons of government.

Having some documentation of the purpose and importance of a study that can be referred to after the authority for decisions has changed would help in utilization. However, as has become evident from research on organizations (see, for example, Cohen and March 1974, Cohen et al. 1972), policy is often not "made"; rather, it accumulates by slow accretion. New information may actually slow down the process since it may make decisions more complicated. Thus, one has to think of policy formulation and decision making as involving different stages, different people, and a process of absorbing and digesting all types of information. tested empirical findings from evaluations are only one of those types.

While the reduction of ignorance may always be desirable, it is not synonymous with the reduction of risk. In fact, new information may produce considerable risks as it enters an organization. Perturbations go through the organization--established assumptions and ways of doing things become threatened, agenda priorities and budget line items may be thrown into question, and so forth. The common response to such threats is to let procedure take precedence over substance and to ignore the message of the new information in the interest of preserving established procedures and structures. To the outsider, it may appear that the information is ignored, though it may be used informally. Studies carried out on the use of knowledge among upper-level federal officials in the United States and abroad show that the control of information is more important than its use (Caplan

1980). The bureaucratic nature of state and local educational agencies has been amply documented (Murphy 1974); maintenance of the organization is also a priority goal. So, if knowledge use is to be furthered, stress must be placed on understanding bureaucratic rationality and on being nonjudgmental about it. It really is no less "correct" than individual or scientific rationality, but it is different and will deal differently with information.

EVIDENCE ABOUT UTILIZATION

To what extent is the impression correct that evaluation results in education are little used? Who does use evaluation results and who does not? The most comprehensive review addressing this topic consists of the recent case studies done by Leviton and Boruch (Ch. 6 in Boruch and Cordray 1980) and the accompanying analysis of the existing literature on evaluation utilization. The analysis, which generally confirms the findings of earlier research, is summarized below.

First, despite the difficulty of tracing utilization, there are a number of well-documented cases both at the national and at local levels in which evaluation findings were used directly in modifying laws or regulations, influencing choices of curricula or instructional strategies, or altering management practice. For example, of the 42 evaluation activities included in the section on use in the 1979 Annual Evaluation Report (U.S. Department of Health, Education, and Welfare 1979b), one-third were specifically cited in congressional documents or led to identifiable revisions in regulations and other management procedures.

Second, cases of conceptual use, or contribution to the accumulation of knowledge about a program, are obviously more difficult to verify. Nevertheless, there is evidence from interviews with congressional staff (Florio 1980) and research on the behavior of federal executives (Caplan et al. 1975) that some of the major sources of information (e.g., the Congressional Reference Service) used in Congress and by executive agencies are based on research evidence, including evaluation findings. Often, such research-based information is used for framing issues, developing program ideas, and general oversight rather than for immediate decision making. This type of knowledge use is not always apparent even to the user, let alone recognized by an outsider.

Third, in the last few years, the majority of evaluation studies have been concerned with implementation and managerial process--the type of study most likely to lead to direct application. In this, evaluation is not different from other social science research; Caplan et al. (1975) found that more than half the use of social-science-based knowledge by federal executives was to increase administrative efficiency and organizational control. The use of results from program effect studies has been more difficult to discern, and even when such studies are cited, it is not the findings on effects, but those on coverage and management that are used. The evaluation study of the bilingual education program provides a good example (Danoff 1978).

Fourth, a continuing problem in relation to utilization is the failure to spell out the ways in which the information developed by a study could be applied. What policy options appear preferable to reach certain goals? What management strategies deliver services effectively? What are the outcomes of different curricula in different types of classrooms, for different types of students? When evaluation studies address questions not perceived as important by a particular audience, they are likely to consider the results irrelevant and useless. For example, a number of local sites have reported that the data required by the federal government on Title I and other education programs are not useful to the local agency (David 1978), while others consider such data useful but needing to be augmented by specific local studies in order to gauge program progress (Boruch, Leviton, Cordray, and Pion, Ch. 6 in Boruch and Cordray 1980).

Fifth, there has been little attempt to specifically reach audiences concerned with equal educational opportunity. Women, minorities, and handicapped people generally believe they have limited access to social science research and evaluation processes that they see as affecting programs that are significant to them. Because of this perception of exclusion, some of the largest groups involved in equal opportunity issues, such as the NAACP, ASPIRA, COSSMHO, the National Urban League, and the National Council of La Raza, are developing their own capability for research and development or have begun to work closely with research organizations willing and capable of addressing issues of interest to minority groups. The Council for Exceptional Children performs a similar function for programs serving handicapped

children, as do women's organizations for programs of concern to them. As long as groups representing beneficiary interests see themselves as peripheral to the sharing of information produced by evaluation, there is likely to be unnecessary controversy and friction.[6]

TOWARD INCREASED UTILIZATION

The preceding sections have attempted to define various types of knowledge use, discussed the setting or context for use, and briefly reviewed the evidence on the degree of use. Before considering what might be done to increase the use of evaluation results, we summarize what has been learned about the utilization of research knowledge in general. The research literature is replete with recommendations on how to improve the likelihood that knowledge will get transferred from producer to user and actually used (see, for example, Havelock 1969, Davis 1973, Glaser 1973, Havelock and Lingwood 1973, Rogers and Shoemaker 1971, Zaltman et al. 1973). Those recommendations tend to cluster around two sets of factors: the nature of the information and how it is communicated.

Nature of the Information

The ways in which knowledge is produced and is perceived by its potential audience(s) affect its use. The important characteristics of knowledge associated with increased likelihood of use can be summarized as intuitive correctness, objectivity, and relevance (Caplan 1977). Obviously, there is not much that researchers can do to produce knowledge that fits the first characteristic, that seems to match common sense or to "feel right." However, intuitive correctness is probably most important only in the early stages of policy formulation, for needs assessment and for considering intervention possibilities. Perceptions of objectivity are usually enhanced by distancing evaluation from program operations, but, as noted in Chapter 2, this may also make results less relevant for some audiences. The reverse is true as well.[7] Relevance involves continuous interaction between the primary audience and the researcher, although that may affect the researcher's objectivity.

There are several important elements in achieving relevance:

- Negotiated content. Evaluators, sponsors, individuals, and groups comprising the primary audience(s) (if other than the sponsor) and action sites or program managers must negotiate what issues and information needs can be addressed in terms of researchable questions and what types of data it will be possible to collect at program sites. Such negotiation is not a one-time-only task; it should proceed throughout the evaluation so that the study is not stymied or does not turn out to be irrelevant.
- Appropriate research forms. Insofar as methodological limitations allow, the research should aim to use the policy maker's or primary user's definition of the problem. Researchers too often tend to define the research to fit methodologies rather than the interests of the likely audience. The law of instruments has a way of taking over: that which can be measured is measured, whether or not it addresses objectives or concerns of interest to the policy makers or program managers.
- Realism. The research questions addressed and the interpretation of results must deal with options that are realistic for the decision makers expected to take action. The variables under study should be ones that are politically malleable: that is, they can be changed, if necessary, in order to improve policy or program substance. For example, periods of reading instruction can be lengthened, but a 1:1 student/teacher ratio, even if effective in teaching reading, is unrealistic on a wide scale because of its cost. Implications and recommendations must take into account the constraints of likely users, such as political acceptability or budget limitations.
- Timeliness. It is especially critical for direct knowledge application that information be timely. If a study is to provide input to legislative or funding decisions, but is not geared to the authorization calendar or the budget cycle, it will be irrelevant to the primary audience(s). While what may be relevant today may not be relevant tomorrow, increased contact among parties at interest and evaluators will improve the probability that relevant questions will be addressed.

Attention to these elements was a major factor in the success of the NIE compensatory education study (Hill

1980). And portions of effectiveness studies deemed relevant, namely those having to do with coverage and resource allocations, have been used in formulating legislative amendments, appropriations, and changes in regulation, even when the findings on effects appeared to be ignored: for example, the histories and use made of the sustaining effects study (Systems Development Corporation 1976) and the Title VII bilingual education study (Danoff 1978). (Citations in congressional documents of these studies and other documented uses are given in Boruch, Leviton, Cordray, and Pion, Ch. 6 in Boruch and Cordray (1980).) In Chapter 5 on the organization and management of evaluation activities, we make some recommendations pertinent to increasing the relevance of evaluation studies. Timeliness in particular and current impediments to completing studies on time are treated at some length in Chapter 5 (and also in Chapter 3). We reiterate the need for quick-response evaluation capability on part of the Department, as well as sophisticated planning of major evaluation tasks that will yield at least some useful results at the time they are needed by primary decision makers in Congress or at the top levels of the Department.

Communication of the Information

The many factors that have been identified in the literature as enhancing the transfer of knowledge and its use can be grouped under two headings: communicability and linkage.[8] Communicability encompasses matching the style of communication used by the researcher or other transfer agent (see below) to that of the primary audience(s). Since researchers are not necessarily the most effective communicators, nor will they always be on call when needed, linkage by means of transfer agents is necessary.

Several principles about communicability have emerged from the literature and successful practice:

- Intelligible reports. Reports to primary audiences should be tailored as much as possible to their needs and their situation (Patton et al. 1977). Language should be understandable and situationally applicable; e.g., papers and reports written for scholary audiences are rarely appropriate for the primary or other audiences. Too often, social science researchers write

for their colleagues and, even when studying issues of pressing public concern, tend to emphasize the esoteric, counterintuitive, or paradoxical. Social scientists in the United States have a special fascination for numbers, but more emphasis should be given to the substantive meaning of evaluation findings, not to their numerical properties and the niceties of the statistical analyses. Reports should avoid jargon, be written in plain English, and address in a straightforward manner the issues relevant to the intended users and their informational needs. If a number of different audiences have primary interests, several versions (or translations) of a report may be necessary.

- Accentuating the positive. Whenever possible, recommendations ought to highlight positive action steps that can be taken. Things not to do are important to recognize as well, but they rarely carry the same kind of reward for individuals in a position to act.
- Live communication. The print medium is not the only nor even the most effective means of communication. Face-to-face interaction and reporting through conferences provide alternative mechanisms. This allows clarifying questions and making sure that the most important points are covered. Information is more likely to be used when it comes from sources that are trusted, and human beings trust other human beings whom they have found to be reliable in the past more than they trust a computer terminal. Redundancy of communication has proven effective, so that optimal dissemination strategies are likely to include both oral and written communication.

As we noted above, linkage is the term used to cover the gap that may exist between researchers and the audiences for their findings. Techniques to create linkage derive from research on communication and the spread of innovation (Katz and Lazarsfeld 1955, Rogers 1962). Lippitt (1965) and Havelock and Lingwood (1973) single it out as the most critical step. The issue is not just mechanisms of knowledge transfer, but information management, storage, retrieval, and knowledge synthesis. Past RD&D (research, development, and diffusion) efforts by the Office of Education were premised on the assumption that knowledge transfer and linkage through organizational arrangements would be effective, but the example of the Congressional Reference Service shows the importance of people who act as the

translators or linkage agents. Experience with the Educational Resources Information Center (ERIC) also indicates that a computerized system for storing and retrieving research information works best when a live person acts as intermediary between the questioner and the system. Linkage can be performed by in-house staff (for example, individuals in the evaluation unit or in a separate dissemination component) or by parties external to either the research or the user communities.

Some important factors that affect linkage include:

- Responsiveness to differences. Transfer agents or groups must be responsive to differences between researcher and audience and to differences among audiences--perspectives, values, motivation, and language. They must know how to translate from one to the other and when direct interaction should take place and when not. (For example, some researchers make excellent congressional witnesses, others--equally eminent in their field--do not.)
- Mediating problem definitions. Even at the beginning and during the course of a study, transfer agents can be useful because--speaking the language of both the researcher and the audience--they can help define policy decision problems in researchable terms. This role can be especially important when the intended user is not the immediate sponsor of the evaluation and therefore does not have automatic contact with the researcher. Problem definitions and criteria used by those requesting an evaluation must be understood by the researcher and be a guide to what will be done in a study. They must also be clarified so as to be researchable, or the reasons they are not must be conveyed to those requesting the evaluation. (As we noted in Chapter 2, examples of unresearchable problems are the measurement of effects for diffuse or broad-aim programs for which objectives cannot be specified, the measurement of the aggregate effects of a program that takes different forms in thousands of different locales, or the effects of weak treatments administered in complex settings.)
- Human agents. Linkage is best achieved by people rather than by cold-terminal (computerized) systems, although this may change as the computer culture becomes more pervasive and terminals become more accessible in location and in language. At present, however, decision makers are still used to face-to-face communication for

most important transactions, which only later get codified in print (Chelimsky 1977).

- Open systems. Bureaucracies, including legislative and executive agencies at the federal, state, and local levels that deal with education, tend to be self-referential systems: that is, people in bureaucracies look for information that comes from the inside and find it more credible. This characteristic is also true of other people in the evaluation process, such as the various interest groups. For example, teachers tend to consult other teachers and their professional associations when they need information; groups representing minority interests have set up their own research components. It also applies to knowledge producers, i.e., researchers, particularly those who are university-based and are not dependent for their livelihood on communicating with potential sponsors of evaluations. Transfer agents can help make all these groups more aware of outside information. But to go beyond awareness and expect linking or transfer agents to increase responsiveness to information would require them to understand the function of information in each group and the risks that the use of information entails for each.[9] Transfer agents are not likely to be able to counteract behavior based on maintaining cherished assumptions or well-established procedures and that therefore has a need to ignore perturbing research findings.

Recommendation D-9. The Department of Education should test various mechanisms for providing linkage between evaluators and potential users.

The Department might consider establishing a unit charged with studying, developing, and instituting knowledge transfer mechanisms and evaluating their effectiveness. Alternatively, outside experts might be charged with this responsibility. Appropriate activities of a linkage unit, whether within or outside the Department, would include:

- Helping assess proposed dissemination plans for evaluation studies and suggesting improvements;
- Performing needed translations of evaluation reports so that they can be understood by the intended audiences;

- Funding research (in conjunction with the NIE dissemination research unit) on the access, transfer, communication, and utilization of evaluation information issuing from studies sponsored by the Department and elsewhere;
- Developing effective techniques for the synthesis, storage, and retrieval of evaluation studies on a continuing basis; and
- Developing and installing regular procedures and institutionalized arrangements designed to facilitate the use of evaluation data on a day-to-day basis, at least within the Department.

AUDIENCES FOR EVALUATION FINDINGS

If the main purpose of evaluations is to help develop more effective policy and improve education programs, who are the audiences that are likely to use evaluation results in this way? What kinds of information do they need? And how can evaluation planning be improved to better serve those needs?

Conventionally, evaluations at the national level have been considered relevant to two primary audiences: policy makers in Congress and in the federal agency (i.e., the Department of Education) and federal program managers. In this simple view, policy makers would use the findings from evaluations to determine present and future program needs and directions, and managers would have a tool by which to improve the delivery of services mandated in programs. As evaluation results have become visible, however, it turned out that they have also served as ammunition for critics of controversial programs or as support for a program's advocates. Federal legislators, convinced of the importance of local decision making in education, have also been concerned with local use of evaluation results to improve programs within the local school system.

Empirical evidence from studies of the use of evaluations (e.g., Boruch, Leviton, Cordray, and Pion, Ch. 6 in Boruch and Cordray 1980, Brickell 1974, Alkin et al. 1979) has shown that not all of those audiences can be served by any single overall study. The information needs of diverse audiences with varying and sometimes conflicting interests and perspectives make it virtually impossible for one evaluation study to satisfy them all. Policy makers may be mainly interested in coverage

issues, program managers in efficient delivery, and recipients in issues of equal educational opportunity. Each of these interests requires a different approach, even different data collection.

Perhaps the clearest example of the problems of diverse interests is the case of Title I evaluations (Wisler and Anderson 1979, Cross 1979, David 1978, 1980, Reisner 1980). The major evaluation strategy used since the inception of this program has been collection of data at the local level that, through aggregation at the state and national levels, was to serve the information needs of all three levels of government. The result has been the generation of large quantities of data that have not been useful at either the local or the national level--a costly and frustrating process leaving all parties dissatisfied. The failure of Title I evaluations has been blamed on the lack of competence at the local level to collect data that can be aggregated. While the competence of some local evaluation units may be an issue, the history of Title I evaluations illustrates a much deeper problem, namely, the confusion of evaluation purposes. The original intent of the congressionally mandated local evaluations was to serve the needs of a local audience, defined by some to be the parents of poor children and by others to be the local school administrators and teachers. Later demands for assessing the overall effects of Title I spawned a complicated system of aggregating from the local to the state level and from the state to the national level. When it turned out that data emanating from thousands of different sources proved noncomparable, Congress mandated technical assistance to the local systems to help with procedures, designs, measures used, and problems encountered at the local level. Models for evaluation designs were developed and the technical assistance centers were created to instruct local evaluators in proper use of the models. Yearly costs for this assistance system now stand at $12 million, more than half the budget of the central evaluation unit. And yet complaints about the utility of Title I evaluation information continue. Local school systems find the data they are required to collect by federal directive of little use to them and, if they have the resources and the competence, they conduct their own program improvement studies. At the national level, Congress has consistently expressed its dissatisfaction with the information it receives, as evidenced by the rewriting of the evaluation requirements

for Title I that has occurred in every reauthorization of the program. Congress finally resorted to commissioning its own study, which was carried out by the National Institute of Education, a unit that was independent of the Office of Education (P.L. 93-380, Section 821). Leviton and Boruch (Ch. 6 in Boruch and Cordray 1980) summarize the evidence on the usefulness of the NIE study to its audience, citing specific changes in law and regulations in six major program areas directly traceable to study findings. Much of the success of this study as contrasted to all the other Title I evaluations is explained by its director (Hill 1980) as due to the extensive consultation with the primary audience, Congress.

To increase the probability that results will be used, the plans for an evaluation should spell out who the primary audiences are likely to be and how it is planned to reach them, so that both the substantive issues and the dissemination strategies can be negotiated with them. However, there will often be a number of secondary audiences. For example, an evaluation concerned with testing alternative curricula in career education to facilitate local choice may also affect the regulations governing federally supported vocational education programs. For evaluations conducted at the national level, decision makers (within the agency and Congress) and managers at the federal level are likely to take precedence. But where federal funds are made available for state and local evaluations, needs at those levels should be served.[10]

The Role of Planning

Although planning does not necessarily lead to an agenda that is subsequently carried out in detail, the act of planning always leads to an improved sense of priorities, provides a forum in which competing interests can reach accommodations, and induces an active as opposed to a reactive stance toward essential activities.

Recommendation D-10. The Department of Education should institute a flexible planning system for evaluations of federal education programs. (See Recommendation D-1.)

A flexible and workable planning system must have several attributes. First, it ought to provide for appropriate information for the predictably recurring legislative cycles on education programs. This entails a standard sequence of studies--timed to be available for reauthorization and appropriation hearings--that will furnish information on the coverage of programs, descriptions of how they are run, and a synthesis of information available at any given time of what can be said about their effects. Second, there must be an ongoing program of evaluation studies carried out at the deliberative pace required to adddress problems that are poorly understood. Third, the Department must have the ability to respond to interesting questions that arise as a result of ongoing research, changes in policy, or development of new programs.

In the past, the central evaluation unit of the Department has concentrated resources on massive studies, in part because such studies require fewer procurement actions to allocate available funds. But big studies invariably take longer than anticipated and become highly inflexible; hence they often end up addressing matters of tangential interest to the audience at hand when they are finally completed. Any evaluation plan for a major education program should contain a series of linked studies, some of which furnish factual information that can be obtained in reasonably short time and some of which address issues of long-term interest. Thus, at any particular time and especially at predictably recurring decision stages, one or more additional sets of findings about a program will be available. Additionally, the value of the whole evaluation plan does not depend on the success or failure of a single massive study or on the performance of a single contractor; there will always be some useful studies resulting from the overall plan, even though some may not turn out as hoped. In addition to the plan for the NIE study of Title I, examples of such evaluation planning are the original plan to evaluate the Education for All Handicapped Children Act (U.S. Department of Health, Education, and Welfare n.d.) and the Department's new evaluation plan for Title I of ESEA developed in 1979 (U.S. Department of Health, Education, and Welfare 1979c).[11] The Committee applauds the

Department's direction in this respect and believes that it will help make the Department's studies more relevant to the immediate concerns of decision makers and departmental managers. Before any costly evaluation study is undertaken, however, ways in which it can inform decisions and the risks of the evaluation questions changing during the course of the study should be outlined through the type of evaluability assessment described in Chapter 2 or through some similar process.

The absence of a reasonable planning system in the Department has had two deleterious consequences.[12] First, it has given rise to an emphasis on activities for "putting out the fire"--projects done in response to an immediate crisis because no suitable information was at hand when the question arose. Not infrequently, such projects are irrelevant by the time they are completed, either because the crisis has subsided or a different one has arisen and attention has shifted. The emphasis on addressing immediate concerns has reduced the Department's ability to evaluate programs on a recurrent basis in a fashion that would cumulate evidence on their implementation and effectiveness over time. Studies to develop and test out more effective program alternatives receive even shorter shrift.

The second effect of the absence of appropriate planning has been to create yearly uncertainty, beyond that created by the budget process, about what studies the Department will undertake. When yearly planning is not set in the context of approved ongoing plans, the approval process takes longer than necessary and may be subject to capricious and arbitrary decisions. The history of fiscal 1980, when it took 6-9 months to obtain approval for initiating a study, provides a vivid example.

Recommendation D-11. The Department of Education should establish a quick-response capability to address critical but unanticipated evaluation questions.

No matter how flexible the planning system, there will be a continuing need to respond quickly (within a 2- to 6-month time frame) to evaluation-related questions that come from the Congress or from top-level Department officials. Department staff charged with evaluation responsibilities must be in a position to deal with such requests. In some areas, in-house expertise may exist, but even under the best of circumstances such expertise

cannot be expected to cover the great variety of topics that may surface at various times. Several extramural mechanisms are available for a quick-response capability:

- Lists of contractors can be maintained who, as a result of being found qualified in specified areas through the RFQ process, can be awarded small contracts within days for work that is limited in scope and time. This mechanism in the form of basic ordering agreements has been used by the Assistant Secretary for Planning and Evaluation (ASPE) in the former HEW; the dollar limit on contracts was $60,000.
- Highly qualified selected organizations can be awarded contracts that pay for a given number of person-hours of effort, with tasks to be specified as the need arises. This mechanism has been used in the Department of Labor, with the limit for any one-year contract set at $200,000.
- 8-A contracts and awards to SBA-eligible firms can usually be executed more quickly than other types of contracts.

In order to be fully responsive to the information needs of its primary audiences, the Department must be able to combine a deliberative planning process that allows time for field and constituency involvement with a quick-response capability that can address unanticipated but critical evaluation questions as they arise.

The need to serve short-term information requests can be considerably enhanced in any program by the development of good management information systems. Thus, for example, if a good management information system had been in place, it should have been possible for the Spanish/English bilingual education program (Title VII) to have provided Congress with detailed information on the ethnicity and language status of the students being served. Instead, a study intended to assess the impact of the program had to use a considerable share of its resources for documenting program coverage (Danoff 1978). Similarly, such questions as the trends in composition over time of students enrolled in education courses in colleges and universities ought to be routinely collected as useful and necessary background data on the future supply (over or under) of teachers.

For many programs that are not funded through the Department, the provision of such management information

may be difficult to the point of impossibility. But for federal programs, the Department should consider the possibility that good management information systems may provide much of the information that may be required about a program for many decision-making purposes. Such systems must be carefully designed, however, to provide information that is likely to be useful, rather than trying to cover all contingencies. As we note in Chapter 5 below, grantee reports have too often been collected without ever being reviewed.

AUDIENCES FOR EVALUATION FINDINGS

The discussion of different audiences for evaluation results that follows tries to indicate different information needs for each. Two facts should be noted: there are important distinctions within broad classes of potential users or audiences, and sponsors are sometimes but not always synonymous with primary audiences. The latter fact means that the process of negotiating research questions and other substantive issues may have to involve a number of parties.

Primary Audiences for National Evaluations

Executive Policy Staff

This category includes individuals with authority over resource allocations and the design of programs, most importantly, senior-level agency officials and their analytical staffs and budget examiners in the Office of Management and Budget (OMB). It is rare, if ever, that these officials are waiting for evaluation study results in order to make up their minds on what policies to pursue or what programs to fund. The weight of an evaluation may be slight in comparison to the constellation of interests and other reasons for deciding one way or another, even in ways counterindicated by an evaluation study.

The temptations to misuse or not use the results of evaluation studies are all too clear; hence the importance we place in this and other chapters on the obligation of evaluators to release findings independently of executive decision makers. These temptations are also the reason (as we indicated in

Chapter 3) for recommending that all evaluation studies be subject to review, the results of which are made public (see Recommendation D-6).

One of the problems in the utilization of evaluation results is that findings may not be disseminated to all persons involved in making decisions at the executive level. This is often true for OMB staff, who are generally not in the "loop" of people who normally receive evaluation reports, so their information needs may be served inadequately. In addition, turnover of top-level agency officials in education has aggravated the problem of loss of information and institutional memory. On the other hand, agency officials have the advantage of being able to draw on their policy and evaluation staffs, who are probably the most consistent users of evaluation data while also being the likely immediate sponsors of evaluations.

The potentially short life of evaluation findings, even though the knowledge might be useful at a later time and in a different context, means that dissemination should not be just a one-time effort. Archived evaluation studies that are difficult to obtain and whose existence is difficult to determine are useless. Hence some attention should be given to the problem of re-dissemination of evaluation findings, perhaps in the form of summaries or reviews of past evaluation findings for executive-level officials as programs and policies come up for review.

Congressional Policy Makers

It is a mistake not to differentiate among congressional users of information. Rarely are members of Congress direct and immediate audiences. Rather, the initial contacts are more often with the Congressional Research Service (CRS) staff, committee staff, or personal staff of members of Congress. In addition, staff of the Congressional Budget Office and of GAO are frequently prime audiences for evaluation studies. CRS, as part of the Library of Congress, functions as a quick reference service for both members and committees of Congress; GAO carries out special studies at the behest of Congress.[13] Congressional staff themselves differ in their use of evaluation information: senior staff of committees are generally better informed users of evaluation results than personal staff of individual

members, who tend to be junior, must cover a much broader range of issues, and must generally find evidence to support a member's view. There are also differences among types of committees: authorization committees tend to cite evaluation data more frequently than appropriations committees (see Boruch, Leviton, Cordray, and Pion, Ch. 6:12-18c in Boruch and Cordray 1980)--proof, perhaps, of the fact that budgetary decisions often are not heavily influenced by the results of program evaluation.

It is relatively easy to document the explicit use of evaluation studies by Congress and its staff: who makes what information requests and receives responses from CRS, who has received copies of evaluation studies, and who refers explicitly to those studies in committee reports and in the published remarks of members of Congress. But there is also a more informal and diffuse infiltration of information into congressional discourse that is much more difficult to trace because it leaves no explicit markers. Thus, a Congresswoman who remarks on the floor that a particular program is working well may mean that she has talked to a school principal in her district who assured her that without the program his schools would be suffering, or she may mean that she has received a memo from one of her staff who had summarized an evaluation report from the Department of Education, or she may be referring to an assessment from GAO, or she may merely be expressing her own opinion based upon whether or not the program is "in line" with the kinds of things she usually supports. We suspect, along with others, that this informal, diffuse use of evaluation results may be the most important use of all, but it is not something for which one can readily provide direct documentation.

Federal Program Managers

Program managers are likely to be interested in information that can improve delivery of educational services at the local levels. Since they are often already committed to a given program, effectiveness information may seem irrelevant to them except insofar as it enhances support for the program. On the other hand, information on how programs are being implemented and what services are being provided to what beneficiaries can lead to improvement in program regulation and

management. However, if the changes suggested by findings of process evaluations are too disruptive of established procedures, they are not likely to be implemented.

Recommendation D-12. The Department of Education should ensure that evaluations deal with topics that are relevant to the likely users. (See Recommendations C-1 and D-1.)

As discussed earlier, relevance is not easy to achieve, but it is relatively easy to specify procedures that will make it more likely. Such procedures include:

- Primary audience(s) must be specified from the beginning of the study.
- Arrangements must be made to facilitate communication between evaluators and intended users at the inception of a study and throughout its course. This will help ensure the fidelity of the evaluation to the questions of interest to the identified audience(s) and will also help obtain commitment and interest on their part. Current administrative restrictions that inhibit that kind of communication should be removed.
- When the goal of an evaluation is to provide information for decisions at specified times, such as the reauthorization of programs or annual program appropriations, reports must be delivered on time. If a study has been delayed, its abortion should be considered unless some aspects will address longer-range concerns.
- Evaluation monitors should be charged with the responsibility of including in their routine monitoring information about events and changes that carry implications for the usability of findings. Changes in evaluation design or methodology are sometimes made in response to field conditions, budgetary and clearance constraints, or for other reasons. Such changes may have sufficient impact on a study so that the research questions framed to be relevant to the identified audience(s) can no longer be addressed adequately. Changes in the conduct of an evaluation that have such impact on the possibility of utilization should suggest rethinking the objectives of the evaluation or terminating it altogether.

Secondary Audiences for National Evaluations

Other audiences also have a stake in federal education programs, and therefore in evaluations of them, even if the questions addressed have been framed by the concerns of federal legislators or executives. Of course, some studies done at the national level may specifically address the information needs of a nonfederal audience, for example, representatives of minority and other beneficiary groups. For studies initiated by or at the behest of any of these other audiences, our classification of primary and secondary audiences would, of course, be reversed.

State and Local Agencies: Central Staff

The distinctions made at the federal level among decision makers, evaluation (and other analytical) staff, and program managers are also important at the state and local levels. The motivations and general information needs of the staffs are analogous, but focused on the program as it operates in the local setting. Since the policy variables that can be altered by state and local administrators are considerably different from those that can be altered by federal staff and Congress, evaluations must address different questions. Similarly, program management at the federal level entails quite different responsibilities from program management at the state and local levels, and process evaluations that are intended to improve management must be sensitive to these differences.

Local Agencies: Principals and Teachers

The individuals who actually provide the educational services intended by a program (and their representatives, such as the National Education Association (NEA), the American Federation of Teachers (AFT), and associations representing school principals) can become a powerful constituency for or against a program, as has been demonstrated by the history of Head Start and the experiments with voucher programs. Evaluations can be threatening or supportive--threatening if they appear to suggest a reduction in a program viewed as useful, supportive if they offer help to teachers in

doing a better job with a program. If the purpose of an evaluation is to do the latter, then it must address program elements that are under the control of teachers or principals. For example, demonstrating differential effects of a program for different population groups is not helpful to teachers or principals since neither can select whom they will teach. However, demonstrating differential effects of alternative program strategies may be helpful, since teachers can select the strategy most appropriate to their school situation and students.

Program Clients and Their Representatives

The ultimate targets of education programs are students. Since much of the investment in federal education programs is at the elementary level, obviously many of the beneficiaries are too young to be audiences for evaluation information. However, there have been specific attempts to address evaluations to parents so that they could use the results to improve their children's schooling. As we noted above, this was the explicit intent of the original Title I evaluation mandate (the first legislated requirement for evaluation in education) as originally proposed by Senator Robert Kennedy in 1965 (David 1978). The objective has seldom been met, even when parent advice was legislated into later Title I amendments in the form of parent advisory councils. Groups other than parents also speak for the interests of beneficiaries, most of whom are poor, members of minority groups, handicapped, or otherwise the targets of discrimination. The interests of these groups, which include the major advocacy organizations concerned with equal opportunity and minority issues, is to use evaluation information to ensure that the intended beneficiaries are adequately reached by the programs intended to serve them and that those programs deliver effective services.

Researchers

The outcomes of any evaluation study will be of interest to other evaluators and researchers who are concerned with development of educational policy, with instructional strategies and school management, and with the technical issues arising in the conduct of applied

research. Although clearly a subordinate audience, evaluators and researchers should have easy access to evaluation reports. In addition, primary data should also be available to researchers so that secondary analyses and cross-evaluation analyses can be carried out. The importance of providing for secondary research is demonstrated by the Cook et al. (1975) reanalysis of the "Sesame Street" evaluation that showed that, although the target population--poor children--had indeed made gains in reading readiness, as documented by the original evaluations, the gap between them and more affluent children had actually grown because the latter made greater learning gains. In order to provide for secondary research, reports and primary data and publication of evaluation-related material should be archived in professional journals and as monographs (see Recommendation D-7).

Media

Discussions of evaluations are more likely to find their way into professional and trade journals if results turn out to be controversial. If the program being evaluated is itself of sufficient interest, the controversies are likely to be picked up by the more popular media, newspapers, television, and radio. Obviously, these are secondary audiences for evaluation results, but the way in which evaluators communicate with them may make a crucial difference in the reporting and interpretation of what a program is all about and what evaluation is all about.

Reaching Audiences

Recommendation D-13. The Department of Education should ensure that dissemination of evaluation results achieves adequate coverage.

Evaluation utilization has been assigned a high priority within the Department, but utilization cannot happen unless people have a chance to consider relevant information. Therefore, it is important to establish clearly that attention to dissemination is not a pro forma exercise. Indeed, the agency must, through its actions, indicate as great a commitment to dissemination

concerns as to research design, measurement, and analytical procedures. Staff who prepare RFPs and monitor evaluations and external contractors or grantees must both understand that attention to dissemination is not just a "boilerplate" requirement, but that dissemination plans will be subjected to the same scrutiny and assessment as are evaluation designs and methodology.

At the very least, evaluation results must be communicated (delivered) to the primary audience(s). This requirement would seem self-evident, but it often is not met. Contract clauses routinely forbid dissemination before formal approval by the sponsor, which is sometimes withheld. As Boruch, Cordray, and Pion note (Ch. 5 in Boruch and Cordray 1980), this keeps some (though not all) evaluators from reporting on their findings. Also routinely, a very limited number of copies of final reports are printed (100 copies for most studies unless unusual circumstances exist), with the result that landmark studies like the Title VII bilingual education study (Danoff 1978) quickly become out of print. In some cases, a copy of the final report cannot even be found in the project files (Cook and Gruder 1979). In other cases, like that of the NIE compensatory education study (National Institute of Education 1977), a stockpile of copies actually exists, but it is difficult to get information about how to get copies. In cases of lengthy reports with multiple appendices, archives like ERIC contain only part of the material originally published. Restrictions on the number of copies and on archives--not to mention more costly dissemination strategies--are often imposed by contracting rather than technical agency staff in order to reduce budgets but without consideration of dissemination needs.

All RFPs and grant announcements should include requirements for a dissemination plan that is oriented toward maximizing the likelihood of utilization. The evaluation of proposals should give appropriate weight to the quality of the dissemination mechanisms proposed. Budget negotiations should recognize that adequate dissemination is costly and cannot be an afterthought. Dissemination plans should include:

- Specification of primary and secondary audiences;
- Delineation of the different information needs of the specified audiences and how those needs will be

served, such as different types of reports including more or less technical material;

- Provision for an adequate number of copies of reports and other salient material to be distributed to the specified audiences;
- Strategies for reaching audiences through means other than printed reports, e.g., conferences, throughout the course of the study;
- Specification of timetable events, e.g., congressional hearings, that provide occasion for reporting on findings;
- Mechanisms for reviewing and revising the dissemination plan during the course of a study to take account of changes in the study or in the context of the work;
- Plans for archiving reports and other documentation of findings so that they remain accessible, with a guarantee by the contractor that data will be clean and accessible (see Recommendation D-7); and
- A budget commensurate with the proposed dissemination activities.

Recommendation D-14. The Department of Education should observe the rights of any parties at interest and the public in general to information generated about public programs.

Though minimal dissemination is concerned primarily with the immediate or primary audience, other people having an interest in the program being studied are likely to demand and should have access to evaluation findings. This raises two issues: What are the special rights, if any, that should be afforded the agency that has requested and funded an evaluation, e.g., the Congress, the Department, OMB, or GAO? To what degree should traditional authority relationships be overridden in order to serve the public interest, i.e., what obligations do evaluation units and contractors have to disseminate findings to potential users who are outside the command and report lines within tables of organization?

Findings from evaluations must be made available to those who are importantly affected by the programs being evaluated: for example, those who manage them, those who provide program services, and those who are intended to benefit (or their representatives). Since evaluations

are paid for with public funds, they should also be made available to the public at large. The Committee is aware of the dangers in providing too much autonomy to evaluation units and contractors, but public interest needs suggest that, at the dissemination stage, evaluators should be guaranteed a certain degree of autonomy.

Four steps are needed to provide improved public access to evaluation findings:

- Proper safeguards for maintaining the rights to privacy of individuals and organizations must be applied before release of findings;
- The rights of the sponsoring authority to exclusive access to evaluation results should be limited in time;
- The right of managers and executives to restrict, control, or suppress evaluation findings should be limited in time; and
- Reports on findings should be accompanied, when available, by interpretations and critiques issuing from the review process recommended in Chapter 3.

Appropriate changes should be made in contract provisions to allow contractors and grantees the necessary flexibility with regard to distribution of reports and other dissemination strategies.

Recommendation D-15. The Department of Education should give attention to the identification of "right-to-know" user audiences and develop strategies to meet their information needs.

Perhaps the most neglected audience for evaluation studies consists of program beneficiaries and their representatives. We recognize that this neglect is not so much intentional as it is produced by the very real difficulties of defining this set of audiences in a reasonable way. In order to more closely approximate the ideal that all those having a recognized interest in a program should have reasonable access to evaluation results, the Department should consider dissemination of evaluation reports freely to groups and organizations that claim to represent major classes of beneficiaries of education programs. Positive, active dissemination to such right-to-know groups may include such specific

activities as ascertaining their information needs prior to evaluation design and during the evaluation, preparing standard lists of groups and organizations to whom evaluation results are disseminated routinely, and seeking out comments and critiques of evaluation reports.

Since it is to be expected that such right-to-know groups will be different for different evaluations, careful consideration of the appropriate right-to-know groups should be part of the dissemination plans that contractors are asked to prepare as part of their response to RFPs and grant announcements.

We recognize that this recommendation makes the whole process of sponsoring and carrying out evaluations more complex, but we consider the involvement of right-to-know groups critical. They often perceive themselves as having limited access to or insignificant involvement in evaluation efforts that may be used for policy and resource allocation decisions that concern them. Furthermore, such groups can have an important influence on the improvement of educational practice, and they need access to information so that their recommendations and actions are as effective as possible. Involvement of these audiences from the very outset of an evaluation enriches the public policy process both because it widens the universe of viewpoints and because, over the long term, it can improve the quality of education insofar as these groups are links to the communities that the government is attempting to serve. If they share in the evaluation process from the beginning, they are more likely to use the findings in their spheres of influence.

Changing User Behavior

Recently Sechrest (1980) has suggested that, if high-level administrators could be trained in how evaluations are done and how researchers present results, utilization would be increased. We include suggestions for such training in Recommendation D-17 in Chapter 5. We have some doubt, however, that top executives or members of Congress have the time for such training or would retain technical knowledge that they would use infrequently. If they did develop greater facility for the language of evaluation, they would certainly become more sophisticated readers.

It is possible to think of incentives for use and sanctions against failure to use evaluation results

within the lower echelons of federal and local program management. For example, program managers and program personnel might be required to respond to evaluations with appraisals and critiques, to provide plans for incorporating valid findings into their program operations, and to document subsequently whether the planned changes had been made. Some states (Rhode Island, Massachusetts) do indeed require reports from local school systems on the use of Title I evaluations. However, there is also some danger that such requirements will turn into additional pro forma exercises. Required responses and actions might also make explicit some conflicts between managers and analytical staff about the value of a program or the effectiveness of its management.

Recent reforms in the federal civil service provide special bonuses for effective program management, and appraisal of management is tied to the results of program evaluation (Office of Management and Budget 1979). However, the success or failure of a program is at least as much dependent on its design and legislative provisions as it is on the efforts of program managers and personnel, so the attempt to judge good management performance through program evaluation may be off target unless only those factors under control of the program manager are examined. A second effect of this particular incentive system has been to define management objectives in clearly measurable terms (e.g., items of priority mail answered on time) rather than in terms of the more subtle and less objectively measurable behaviors that are needed for effective program management, such as frequent and productive interaction with state and local staff.

Sanctions for failure to institute changes suggested by evaluation results have also been suggested, for example, withholding program funds until the changes are made. The history of cutoff of federal funds for violation of civil rights laws suggests that this particular sanction is very unlikely to be imposed. Consequently, we make no explicit recommendation on the use of incentives or sanctions. However, the Department might consider requesting that federal program managers who have had their programs evaluated prepare evaluation use reports. These might be prepared within one year following receipt of the evaluation report and contain an assessment of the level and types of uses made (including reasons for nonuse) as well as an analysis of factors that impeded or facilitated use. If the Department proceeds with such a requirement, the dissemination and

linkage unit proposed above should be charged with the additional responsibility of assessing whether drawing the attention of program managers to evaluation information in this manner actually improves its chances for use.

NOTES

1 The literature on putting knowledge to use has grown as rapidly as the evaluation field itself. Davis (in Human Interaction Research Institute 1976) has estimated that, by the mid-1970s, the research literature concerned with the field of knowledge utilization included some 20,000 citations, compared with 400 such citations 20 years earlier.

2 For example, Marsh et al. (in press) found that changes in rape law had produced a statistically significant decrease from 12 to 10 in the average number of examination procedures that a rape victim had to undergo if she reported the crime. Obviously, in substantive terms of victim humiliation, one could hardly report this as a meaningful change.

3 The average tenure of a Commissioner of Education during the last decade has been less than 2 years; NIE has had six changes of leadership in 8 years.

4 We analogize from a definition by Yin et al. (1976) of situations regarding the adoption of innovations: adoption is regarded as a positive outcome if the innovation leads to improvement but as a negative outcome if it does not; failure to adopt is a negative outcome only if the innovation would indeed lead to improvement but a positive outcome if it would not.

5 Head Start teachers deciding to increase the time spent on prereading activities are as much decision makers in their realm as a superintendent installing a new curriculum, a state legislature passing an appropriation for compensatory education, or a federal program manager developing program regulations.

6 Of course there is always a question as to who can represent beneficiaries. The Committee has made no attempt to address this question in any detail, both for lack of time and because we did not consider ourselves qualified to define such representatives. We note that there are groups that speak on behalf of specific beneficiary groups; their claims to represent these groups could, perhaps, be considered in the same

light as the claim of public officials that they represent the public.

7 Evaluations done by individuals or units that also have operational responsibility for a program are generally mistrusted. How much more objective evaluation becomes when it is done by third parties, but still under the auspices of the program, is not clear, particularly when future evaluation contracts from the same source are a possibility. Evaluations performed or sponsored by units outside a program are not necessarily free of bias either, whether performed in-house or contracted out, especially when top decision makers are known to favor particular points of view.

8 Appropriate packaging has also been deemed important, but many counterexamples exist. For example, the attempt to develop social indicators resulted in a handsome publication (Office of Management and Budget 1973, U.S. Department of Commerce 1977) with attractive and easy-to-read graphics, yet it has found limited use.

9 As we discussed above, there are risks for bureaucracies of having to deal with new information. Other groups also run risks: for example, audiences concerned with equal educational opportunity may find negative results on programs they favor distasteful and disturbing.

10 The distinction is not always clear. Sometimes, expectations for use at all levels are set up when data required at the federal level are collected by staff at the local level, as in the case of Title I. In some cases, it may be most efficient to sponsor a study at the federal level even when the results are pertinent to individuals at the local level; for example, testing the efficacy of alternative strategies for teaching reading.

11 The national-level evaluation of ESEA is not intended to take the place of the three-tier evaluation of Title I based on local data collection and aggregation at the state and national levels. Rather, it is a substitute for previous efforts at the national level to study the effects of Title I, specifically, the sustaining effects study (Dearman and Plisko 1979, U.S. Department of Health, Education, and Welfare 1979a, Baker and Ginsburg 1980).

12 As described in Appendix A, fiscal 1980 was the first year for which there was a comprehensive review of

evaluation plans from different components of OE, and that review did not include the relevant activities of NIE and the National Center for Education Statistics (NCES). The new Department has attempted to institute a more centralized evaluation planning system; at this time, one cannot gauge the degree of its implementation or success.

13 The changing role of GAO and its success in responding to new demands have been described by Levitan and Wurzburg (1979) and by Mosher (1979). Though Congress broadened GAO's mandate as early as 1945 to include monitoring of the administration of programs as well as of expenditures, it was not until 1967 that GAO became active in the field of program evaluation: a review of OEO's antipoverty programs was its first effort. In the succeeding decade, GAO has been changing its staff and organizational structures in order to carry out with greater effectiveness the increasing number of program evaluations undertaken by the agency. At present, studies carried out by GAO range from investigations of misallocation of funds within government agencies to impact evaluations of social programs and even to the evaluation of evaluations carried out by executive agencies (U.S. General Accounting Office 1977, 1978).

5
Organizing and Managing Evaluation Activities

Many of the issues of quality and utilization discussed in the preceding two chapters are related to the way in which federal, state, and local education agencies support and sponsor federally funded evaluations. Dealing with those issues requires consideration of three major factors:

- Responsibility. What kinds of evaluation activities is the Department expected to carry out as part of its oversight functions and of its effective management of federally funded education programs? What should it do for effective policy formulation? What ought to be the responsibilities of local and state education authorities?
- Organization. How are the evaluation activities now organized in the Department and why? How should those activities be organized in order to maximize capabilities and incentives for producing reliable information and high-quality analysis?
- Constraints. What are the impediments to producing evaluations of high quality and using results effectively? Which of the impediments are the result of external constraints and which are due to internal procedures? Which of the external constraints can be alleviated? How can internal processes be improved?

Discussion of these issues reinforces a number of the recommendations made in earlier chapters. In this chapter we suggest guidelines for balancing the need to decentralize and to coordinate evaluation activities; we

also make some additional recommendations on improving the management of evaluations.

RESPONSIBILITY FOR EVALUATION ACTIVITIES

In Chapter 2 we discussed in general terms the different types of policy questions that are asked about established or proposed programs. In this section we consider what kinds of evaluations need to be carried out in order to address those policy questions for education programs.

Accountability

The Department is accountable for carrying out education laws in three respects: ensuring that moneys are allocated as specified, ensuring that benefits go to the targeted groups, and ensuring that civil rights provisions and service mandates are being met.

Fiscal Accountability

Because of the decentralization of education, the allocation of funds for most major programs takes place at all three levels of government: federal, state, and local. (A few programs provide for federal grants directly to local agencies.) Hence, all three levels must account for the use of federal education funds, and fiscal reports from local and state agencies form the basis for the Department's own fiscal reports. Grantee reporting is checked periodically by the agency's inspector general. For a few titles, like vocational education state grants, such auditing is mandatory in law; for the most part, however, the Department has discretion as to what local and state reports and disbursements are audited. Nearly one-fourth ($10 million) of all evaluation funds are spent on fiscal audits; generally, programs with large outlays (Title I of ESEA, post-secondary grant and loan programs) receive most attention (see Appendix A).

As audits have gone beyond checking for sound fiscal management and into checking for compliance with legal requirements on the use of funds, the line between fiscal audits and other accountability evaluations has become

fuzzy. For example, whether Title I money is used to supplant regular school funds or provide supplemental services to eligible participants (Martin and McClure 1969, Stanford Research International 1977a, 1977b) has become an issue affecting the substance of what goes on in the classroom. The early problems with supplanting have caused most school systems to provide "pullout" programs that can be easily accounted for separately, even though they may not be the preferred educational option (National Institute of Education 1977).

Accountability for Beneficiary Coverage

Grantee reports have generally served as the most comprehensive source of information on program participation. Though local agencies are obviously in the best position to count participants, there are two problems with the use of such self-reporting: reliability of the reported data and lack of information on who is not being served. Reliability can be documented through third-party checks on grantee reports. If grantee reporting for a specific title turns out to be highly unreliable, technical assistance on interpretation of the law (e.g., defining participants properly) may be warranted; alternatively, incentives and sanctions that encourage misinterpretation need to be examined and adjusted to bring grantee performance and reporting in line with the legal intent. It is doubtful that the Department will ever be able or wish to replace grantee reporting on beneficiary coverage, but it must accept responsibility for the accuracy of such reporting.

How to document the number of potential beneficiaries not being served is quite another matter, however. Establishing the universe of eligible participants falls under the heading of needs assessment. The incentives and disincentives for conducting accurate needs assessment may be strong at the local and state levels: there is an incentive when having more eligible participants means getting more federal dollars; there is a disincentive when federal dollars are accompanied by matching provisions that call for greater contribution from local and state than from federal sources. At the federal level, there are also strong incentives: program administrators who do not want to see their programs grow are rare indeed,[1] yet this responsibility is often assigned to a program office, as was the case in

developing P.L. 94-142 (Education for All Handicapped Children Act). Because of the incentives, we conclude that needs assessment ought to be carried out not by program offices, but by parties with no stake other than accuracy in the outcome. The cooperation of local and federal program managers is necessary, however, since needs assessment must be informed by intimate knowledge of the local context and of potential program benefits.

Accountability for Civil Rights Mandates

Accountability for civil rights mandates takes two different forms in education. The first involves the enforcement of civil rights statutes in any way related to educational institutions, whether built into federal education legislation or decreed by federal courts, and is based on federal responsibilities under the Constitution. At the same time, the provision of educational services is constitutionally a state responsibility, delegated to local authorities. Enforcement of statutes relating to civil rights and equal educational opportunity has become the responsibility of the Department because it can withhold federal funds in the event of noncompliance. As with fiscal accounting, a separate office headed by the Assistant Secretary for Civil Rights is responsible for compliance, and it is not considered an evaluation activity per se.

The second form of accountability arises because some civil rights statutes require certain kinds of educational services. Two groups are specifically covered in this manner: all handicapped children are entitled to a free appropriate public education under P.L. 94-142, and Title VII of ESEA (in accord with the Lau court decision) requires schools to provide instruction that does not put a non-English speaking child at a disadvantage. Such educational services that are spelled out in laws or in regulations tend to be based on perceptions of constitutional rights rather than on social science evidence about needed services. Consequently, monitoring activities may overlap. Responsibility for compliance with service mandates may belong to the program office, but selective checks are often carried out by the Office of Civil Rights. An example is the labeling and testing of handicapped children.[2] Since these two kinds of offices tend to

respond to different constituency groups (minorities and other targets of discrimination on one hand, school systems and educational institutions on the other), they generally have distinctly different views of what ought to be expected of grantees. Overlap of responsibilities is not undesirable if it is included in overall evaluation planning; otherwise it leads to inefficient use of resources at best and antagonism between units of the Department at worst.

Program Implementation

Except for provisions connected with civil rights and equal educational opportunity, federal education legislation often does not spell out mandatory educational interventions or treatments. The constitutional delegation of responsibility makes decisions in education a jealously guarded right of local and state authorities. Exceptions are such demonstration programs as Follow Through or Experience-Based Career Education, in which school systems are given the choice of one of several specified curricula. Since the rationale of demonstration programs is developing and testing effective interventions, documenting the nature of the services provided through them ought to be an integral part of any evaluation research associated with them. There are also some ESEA titles that include explicit process specifications, such as the requirement for developing an individual education plan (IEP) for every handicapped child served under P.L. 94-142. In the case of such mandated educational processes, especially those instituted on little evidence as to their effects, more than mere compliance checking is also needed. Evaluation should be carried out to find out the degree to which such processes contribute to the overall goals of the legislation, for example, to provide more effective education for handicapped children or--in the case of bilingual education--for children whose native language is not English. Documentation of program process and implementation has been carried out at all government levels and, within the Department, by both the cognizant program units and the central evaluation unit.

Program Effects

With few exceptions, federal funds allocated at the elementary and secondary levels are intended to bring about improved education for those students who have not been served adequately in the past. Because the total amounts spent are large,[3] Congress from time to time has called for information on program effects. In the past, the response by OE has been the commissioning by the central unit of large-scale impact assessments that consume several years and millions of dollars, as exemplified by the sustaining effects study carried out by the Systems Development Corporation (1976, Baker and Ginsburg 1980). There have been several problems with such efforts. First, what Congress often wants and needs is information on effective delivery, in the sense of having accurate accounting for how a law is being carried out, as described above. Better specification of the questions to be answered in any legislation calling for assessment (as recommended in Chapter 2) would help avoid misdirected evaluation efforts; even more important is an ongoing dialogue on congressional needs between key congressional staff and Department staff responsible for evaluation.

Second, even when assessment of program effects is called for, expectations of the size of those effects are often exaggerated because of unrealistic promises during the legislative and appropriation processes. But by the very nature of federal education programs, effect expectations should be modest. Whatever educational service is envisaged as a result of federal dollars, it will be delivered in a decentralized manner through some 16,000 local school systems in the public sector comprising nearly 90,000 school buildings. There are more than 2 million teachers in the public school systems, and another 250,000 people are teaching the 10 percent of students in nonpublic schools. (Private school students also receive benefits under Title I and other federal programs.) Federal programs operate at the margins of this huge enterprise, providing 8 percent of all revenue for public elementary and secondary schools (Dearman and Plisko 1979). Moreover, most federal programs are geared to specific populations; in those cases, support for core education, the major responsibility of the teacher, is expressly ruled out. Yet the children who receive benefits from any of the federal titles do not do so in isolation from the rest of

their education. Finally, as we have noted, federal programs more often than not have multiple and amorphously defined outcome goals, though they are usually explicit regarding distribution of benefits. To expect strong treatment effects under these circumstances--for example, improvement throughout the country in school achievement of a target group or lessening of racial tensions--is to ignore the nature of the educational system in this country.

When the effects of a given program are modest, their estimation is a complex, difficult, and costly task. Such estimation should be done only when it is likely to affect program decisions (for example, in the case of a limited experimental program) and only by the most competent evaluators and evaluation organizations.

Program Planning and Improvement

One of the Department's responsibilities is to provide leadership for improving education in this country; therefore, it ought to carry on a set of prospective activities designed to improve the substance of existing programs and to develop new programs. The relevant evaluation activities are summarized in Chapter 2: needs assessment, identification of interventions likely to relieve the need, small-scale testing of proposed programs under optimal conditions, field evaluation under actual operating conditions, and analysis of likely costs.

Such a process of program planning should operate both at the national level and in selected states and localities that have the resources. A similar set of activities is relevant to program improvement, although the need and the general nature of the program may already be established. Too often, however, the exigencies of the budget process and the demands from those concerned with implementation of current programs relegate the planning of new programs and the improvement of established ones to a low priority. The tracing of benefits already legislated and the assurance that programs are carried out as intended take first priority. Development of knowledge needed to formulate better programs is a long-term process, with no assurance that the outcomes will be immedately applicable. In view of pressures for greater accountability and improved program management, it may be argued that activities aimed at the substance of programs should be relegated to

the research component of the Department, but such an assignment may lead to unfocused research not easily related to program variables that can become part of a federal education program. An interesting example of coordinated program improvement research exists for bilingual education, for which NIE, the program office, and the central evaluation unit all participate in evaluation and research planning. This kind of coordination recognizes that, particularly for existing programs, program managers should be involved in the design and testing of alternatives. They can provide the necessary experience regarding current program operations, and they are likely to have ideas for improvement. But the overall effort should be in the hands of research-trained people whose full-time attention can be devoted to evaluation activities.

Evaluation as a Management Tool

In an examination of the use of social science information by federal executives, Caplan (1976) found that, in the Office of Education, more program evaluation was conducted and less of the information generated was actually used than in any other agency examined. It may be that, in its past emphasis on rigorous studies of program effectiveness, the central evaluation unit of the Department was not satisfying the information needs of the most powerful audiences, namely, the legislative and executive branch overseers. Their primary interest is in fiscal and beneficiary information, which provides an effective tool for holding managers at all levels--federal, state, and local--accountable for proper distribution of benefits. In fact, OMB circular A-117 (Office of Management and Budget 1979) requires both management and program evaluation of every agency (including an annual report) and ties this activity directly to the reward system for federal managers included in the recent civil service reforms.

Problems are likely to arise, however, when accountability demands are taken beyond ensuring that resources are properly allocated. Who is to be held accountable for program effects that will probably be modest and difficult to estimate? As Cronbach et al. (1980) point out, condemnations of individuals for weaknesses or "failures" that occur in a system over which they have little control is a perversion of the use

of accountability. The delivery of federal education programs is a case in point. Given that authority is dispersed and delivery of educational services highly decentralized, it is difficult to assign responsibility for program outcomes to specific institutions, let alone to sets of individuals such as teachers, superintendents, or federal program managers. This is not to argue that studies of program implementation and of program effects should not be done, only that they are unlikely to be a useful management tool.

There is a second problem with using evaluations of program effects for trying to improve program management. The fear that programs will be curtailed because of negative findings is aggravated in today's climate of tightening budgets. Even if in the past there have been few examples of established education programs that have been cut severely or abolished as a result of evaluation findings, the threat is real. Line managers and top officials wanting to build programs and budgets are not likely to cooperate enthusiastically in evaluations they perceive to have the potential of damaging their programs.

CURRENT ORGANIZATION

How effectively is the Department now organized to carry out its evaluation responsibilities? Figure 3 illustrates the organization of the Department as of January 1981; Figure 4 places the central evaluation unit, which carries major but not sole responsibility for evaluation, in its current context.

For evaluation activities other than fiscal accounting and civil rights enforcement, legislation and administrative actions have created a hodgepodge of evaluation responsibilities and assignments, based more on the power base and history of individual programs than on rational planning. After an analysis of major education programs, Cordray, Boruch, and Pion found: "Programs differ markedly with respect to the number and types of evaluation mechanisms that are described within the law and by federal regulations" (in Boruch and Cordray 1980, Ch. 3:7). Thus, states and localities may or may not be charged with producing performance reports, doing needs assessments, and carrying out studies of program improvement and program effects. For some programs, states are supposed to monitor local programs

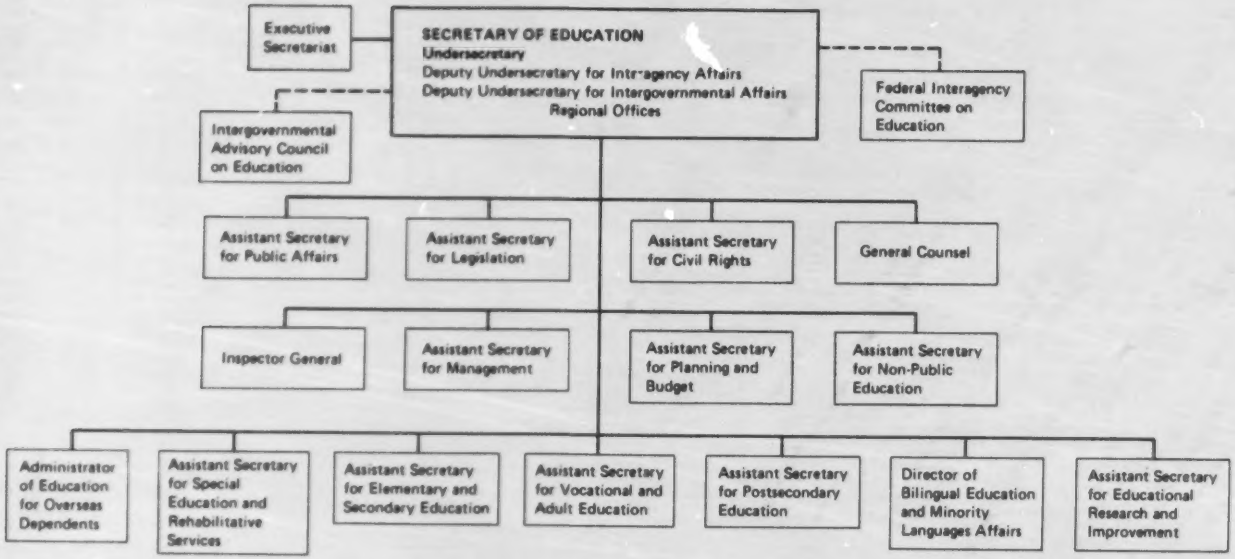
Executive Secretariat
SECRETARY OF EDUCATION
Undersecretary
Deputy Undersecretary for Intra-agency Affairs
Deputy Undersecretary for Intergovernmental Affairs
Regional Offices
Federal Interagency Committee on Education
Intergovernmental Advisory Council on Education
Assistant Secretary for Public Affairs
Assistant Secretary for Legislation
Assistant Secretary for Civil Rights
General Counsel
Inspector General
Assistant Secretary for Management
Assistant Secretary for Planning and Budget
Assistant Secretary for Non-Public Education
Administrator of Education for Overseas Dependents
Assistant Secretary for Special Education and Rehabilitative Services
Assistant Secretary for Elementary and Secondary Education
Assistant Secretary for Vocational and Adult Education
Assistant Secretary for Postsecondary Education
Director of Bilingual Education and Minority Languages Affairs
Assistant Secretary for Educational Research and Improvement

FIGURE 3 Organization chart of the Department of Education.

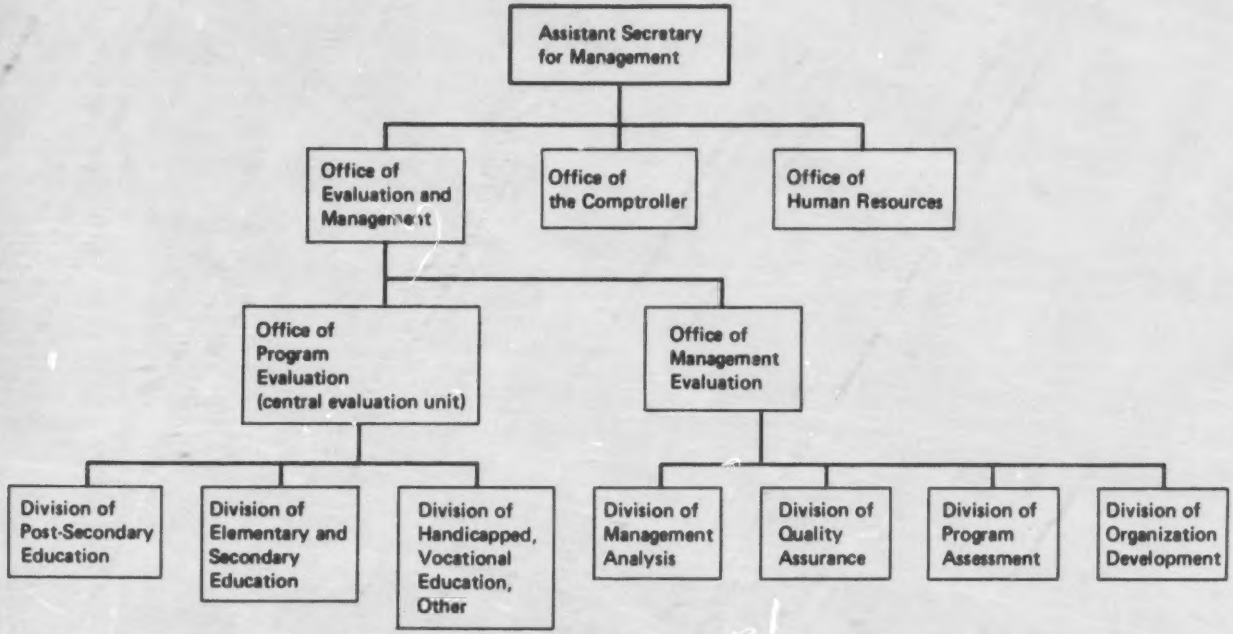
Assistant Secretary for Management
Office of Evaluation and Management
Office of the Comptroller
Office of Human Resources
Office of Program Evaluation (central evaluation unit)
Office of Management Evaluation
Division of Post-Secondary Education
Division of Elementary and Secondary Education
Division of Handicapped, Vocational Education, Other
Division of Management Analysis
Division of Quality Assurance
Division of Program Assessment
Division of Organization Development

FIGURE 4 Organization chart of the Department of Education (Assistant Secretary for Management).

or local evaluation plans or both; for others, there is no provision for review of local evaluations. Both Congress and the Department have been responsible for the present mix: Congress has attached dissimilar evaluation requirements to various categorical titles that distribute evaluation responsibilities differently from program to program; the Department (and its predecessor) have distributed evaluation responsibilities as much on the basis of the political strength of individual program administrators and their constituencies as on any basis connected with the quality or integrity of evaluations.

There has been a central evaluation unit at the national level for a decade, but its responsibilities have varied, even as funding has increased (see Appendix A). After the unit was established in 1970, evaluation activities began to be centralized. The central unit acquired staff, a budget, and responsibility for national studies. This centralization was instrumental in introducing rigor, integrity, and visibility to the evaluation efforts mandated by Congress and sponsored by OE. For several years, budgets and responsibilities increased. But as dissatisfaction developed with the perceived lack of timeliness and relevance of some of the studies--not to mention unhappiness with some findings deemed potentially damaging--pressure increased for certain programs to be responsible for their own evaluation activities. At present, some programs include virtually no evaluation activities other than obligatory program monitoring; others delegate evaluations to the central unit; still others conduct all their own evaluation activities. In addition to the central unit and program units, evaluation activities are also carried on in the research unit (Assistant Secretary for Research and Improvement), the planning unit (Assistant Secretary for Planning and Budget), and at the Secretary's level. Until 1979, there was no overall evaluation planning or coordination of evaluation.

Congressional restiveness with the performance of this nonsystem led to still another layer, mandated congressional studies to be carried out by a designated unit: NIE in the case of studies on compensatory education and on vocational education, NCES for a study on discipline in the schools (P.L. 93-580), and the Secretary's office in the case of a study on school finance.

GUIDELINES FOR ORGANIZATION

It is neither necessary nor even desirable that the organization of evaluation activities be precisely the same for each education program. But the current accretion of idiosyncratic evaluation legislation and internal assignments originally made for political and administrative reasons bears reexamination in the light of some reasonable criteria, such as: the type of policy question to be asked and the information needed; the most effective and efficient ways of obtaining the needed information; the intended use of the information (likelihood that use will occur may depend on how and by whom the information is generated); the size and nature of the program; and the research capacity of the unit considered for assignment of evaluation responsibility. The application of such criteria will indicate what changes might be made to improve the current organization of federally funded evaluation activities related to education. But since there is no one best way to organize these activities, the implications the Committee has drawn from the preceding discussion are presented below as suggested alternatives rather than as recommendations.

Centralization Versus Decentralization

Organizational researchers and management experts have debated the merits of centralized organization compared with those of incrementalism and mutual adjustment brought about through coordinative mechanisms among many autonomous units. Each form of organization has its costs as well as its benefits. Central organization can lead to more coherent activity, but it is time-consuming as the decision process works up through the hierarchy and back down for execution. It may also seem capricious and arbitrary, especially in complex situations and situations of uncertainty. Such conditions are characteristic of most evaluation planning related to social programs. On the other hand, while decentralized planning and execution can come closer to satisfying needs of individual units at the federal, state, or local level, it can lead to duplication, wasteful use of scarce human and fiscal resources, and low quality. Attempts to minimize these negative consequences through purposeful coordination will, like other centralizing mechanisms, exact high costs in time.

The Committee believes that the different evaluation questions that need to be addressed concerning federal education programs are now so diverse and of such varying importance to different audiences that decentralization is warranted. But responsibilities should be assigned in a somewhat more planned manner than at present. There is agreement within the current Office for Management, which has overall responsibility for program evaluation, that some evaluation activities need to be decentralized; in fact, present law and custom so dictate. But planning directives for 1980 manifested an attempt to recentralize evaluation activities through review and approval by the central unit of all evaluation plans. No parallel attempt is evident with respect to evaluation activities funded by federal funds at the state and local levels, except to provide technical assistance in the case of Title I evaluations.

Decentralization Among Levels of Government

As noted, evaluation requirements levied upon local and state agencies vary from program title to program title. (For summary descriptions of requirements in major titles, see Cordray, Boruch, and Pion, Ch. 3 in Boruch and Cordray 1980). Generally, reporting requirements appropriately emphasize the collection of information on beneficiaries served and on distribution of resources. For a number of titles, the states carry the responsibility of aggregating data provided by each local education agency. But state-level reports have seldom been able to make statements about how programs operate throughout the state as a whole, partly because local agencies were not reporting data of sufficient quality and uniformity to allow aggregation. Consequently, states have also acquired some responsibility for technical assistance. For certain titles, localities are also required to identify the number of individuals in the target population (for example, for the handicapped covered in P.L. 94-142). Since identification of individuals generally leads to the need to serve them, and federal funds by no means pay the total cost of service, there are considerable disincentives to comprehensive needs assessment carried out by local agencies.

In addition to reporting on the distribution of funds and on the numbers and types of both potential

participants and those actually served, some titles require reports on "effectiveness." In most cases, effectiveness turns out to be the degree to which the law is being implemented, i.e., whether program services are being provided as specified in law and regulations. A few local and state agencies also carry out evaluations concerned with educational effectiveness. In many cases, however, major expenditures of their own funds reported by local agencies as evaluation of program effectiveness are for testing designed to track general student achievement rather than specific effects traceable to any one program. It appears to be the intent of current requirements that local evaluations serve auditing and monitoring purposes while at the same time also informing local program developers and administrators on the best implementation strategies. As illustrated by the history of Title I evaluations (summarized in Chapter 4), stipulations for local and state evaluation activities have shown a confusion of purpose between assessing the extent to which programs are providing benefits and mandated services and determining ways in which local programs might be improved. Local evaluators are forced to use designs and methods to collect data that can be aggregated at the state and national levels, but such data do not serve the local needs well. Moreover, those data have not even proved useful in providing statewide or nationwide overviews; separate state or national studies have been needed for that purpose. Though some data collected at the local level might serve both local and national purposes, each type of evaluation question has distinctive design and measurement requirements (as discussed in Chapter 2) and implies different relationships among the three levels of government.

We have noted in Chapter 3 the variable quality of evaluation activities carried out at the local and state levels and have recommended that Congress consider a diversified strategy of evaluation requirements at these levels (Recommendation C-3). In Chapter 4 we discussed the need to build in the concerns of target audiences from the beginning to increase the likelihood that evaluation findings will be used. Consideration of how scarce evaluation resources can be best employed to yield reliable information that is useful to the maximum number of audiences reinforces the notion that division of evaluation responsibilities deserves more careful analysis than it has received.

All grantees receiving federal funds for education

programs have stewardship responsibilities. At a minimum, therefore, all such grantees should continue to be required to report on the allocation of funds, on the numbers of beneficiaries served, and on compliance with the law where services and processes are spelled out. But considerably more thought should be given to the amount of such information that can be digested at the state and the federal levels. The impression persists that grantee application and reporting requirements are intended to cover all bases and collect every conceivable bit of information, creating such an overload that most of the data pour in without being scanned, let alone used. For example, in the migrant education program, OE required the states to send copies of all subgrants to OE. According to the program auditors, this mountain of information simply collected dust in a storage area with no attempt made to review it (Rock 1980). The practice was ended as a result of the program audit. More carefully considered requirements would reduce costs and response burden and provide fewer and briefer reports more likely to be reviewed.

Requirements that go beyond the basic reporting needed for accountability functions should not be levied on all localities and states alike. Questions on how a program actually operates in the school, questions on the detailed nature of the services and variations in different localities, and--most difficult of all--questions on the educational effects traceable to a specific program need not be answered by all localities or grantees. Cost effectiveness questions dealing with the desirability of different program alternatives are probably an even less appropriate requirement at the local and state levels. Scarce evaluation resources are frittered away when demands are made of all that could be responded to more effectively by selective sampling in nationwide studies or by studies carried out by individual local systems or states with proven competency and sufficient fiscal and human resources to evaluate their own programs. These considerations lend additional force to the recommendation made earlier:

Recommendation C-3. Congress should institute a diversified strategy of evaluation at the state and local levels that would levy minimum monitoring and compliance requirements on all agencies receiving federal funds, but allow only the most competent to carry out complex evaluation tasks.

To this, we add a recommendation regarding the Department's responsibility.

Recommendation D-16. The Department of Education should clearly spell out minimum requirements for monitoring and compliance reporting and set standards for meeting the requirements.

The objective of this recommendation is to improve the quality of data needed for accountability without increasing the burden of response on local and state agencies. Such data items as distribution of funds, number and types of beneficiaries being served, and specific program services should be defined by the Department so that local and state agencies know exactly what reporting is required of them. Quality control procedures should be enforced so that performance reports can be made to Congress. Before setting the requirements, however, the Department needs to examine its own capacity to deal with local and state reports so as to avoid collecting information that is never used because of the sheer inability of federal staff to deal with the volume.

In order to assist agencies in complying with federal reporting requirements, the Department should extend technical assistance as recommended above (Recommendation D-8). One way to provide such assistance would be to select local and state agencies doing an exemplary job of reporting. If none exists, the Department should fund the development of such examples. Care must be taken to select different types of locales exhibiting a variety of student, teacher, and resource mixes. The exemplary procedures should then be actively disseminated through existing channels, for example, the Department's regional offices, the Title I TACs, the NDN, or the state agencies.

A second way to provide technical assistance would be to make funds available to selected exemplary local agencies to provide technical assistance on meeting reporting requirements to less skilled school systems of comparable type--something like the "developer/demonstrators" funded by the NDN (Far West Laboratory for Educational Research and Development 1979) to provide training, materials, and technical assistance for adopting exemplary education programs. After the first 2 or 3 years, such funding should be based on the success of an agency designated to provide technical assistance in improving the reporting of those receiving the assistance.

Decentralization Within the Department

Different evaluation activities are appropriately located in different units of the Department to take advantage of incentives for using results and of staff interests and competencies. Using the typology developed in Chapter 2, we suggest general guidelines for locating evaluation activities within the Department.

The Office of the Inspector General should continue to monitor whether funds are distributed according to law and are allocated for the prescribed purposes. When questions arise as to whether such additional services as the law mandates are being provided to the target population(s) (rather than the funds being used for regular school operations), they need to be investigated through evaluation strategies and methods appropriate to documenting the nature of program interventions. This type of evaluation requires research capabilities beyond the scope of the Office of the Inspector General.

Accountability questions on beneficiaries served and on program delivery should be monitored by officials who administer the programs at the federal level, namely the Assistant Secretaries for Elementary and Secondary Education, for Special Education and Rehabilitation Services, for Post-Secondary Education, and for Vocational and Adult Education and the Director of Bilingual Education and Minority Languages Affairs. Responsibilities should include the monitoring of program coverage and of provision of services mandated by law and regulation (including such associated requirements as the setting up of parent advisory councils). Where civil rights laws are involved, the Assistant Secretary for Civil Rights has and should continue to have responsibility. Much of the information on program coverage and delivery should be obtainable through focused grantee reporting using adequate quality control and technical assistance measures, as discussed above.

There is continuing need for a central evaluation unit to carry out activities not directly linked to program accountability. First, the unit should sponsor, on a sample basis and in cooperation with the program unit, documentation of program process and detailed implementation so as to provide insight on how educational services have been changed. Second, also in cooperation with the cognizant program units, the central unit should support program improvement or development studies, including needs assessment and understanding of

program context, the testing of promising alternative program strategies, and analyses of the effects of proposed changes in law or regulation. Third, when the issue is educational effectiveness, the unit should carry out--in cooperation with the program offices--needed evaluability studies to define objectives and appropriate measures. Only if such measures can be successfully established and only if a program is of the type and at a stage to allow impact evaluation (see Chapter 2), should such a study be undertaken and then only if the need for it can be justified.

The reason for assigning shared resonsibility for these activities is that program administrators presumably have in-depth knowledge of their programs and an interest in improving educational substance, but they may also have a vested interest in current operations. At the same time, the central unit is likely to have less program expertise but a greater concentration of evaluation talent and social science expertise. When such talent and expertise can be found to an adequate extent in a program office, it may take the lead, with the central evaluation unit as the cooperating office. The central unit should also, from time to time, run checks on accountability information developed by program offices and the Inspector General and, when necessary, conduct its own studies. Precisely how all these evaluation responsibilities are shared between the central unit and program offices ought to be a function of the expertise residing in each program office.

Three functions are appropriately shared between the central unit and NIE (which is under the Assistant Secretary for Educational Research and Improvement). The first is cost-benefit studies designed to establish the efficiency of alternative ways of obtaining the objectives of a given program. Such studies require all the expertise needed for assessing program effects and tying them to specific components of the program treatment. In addition, benefits and costs of the program must be put in monetary terms, a difficult conceptual problem. Cooperation with NIE is suggested because of the breadth of skills required and because it may be necessary to conduct basic research in how to do cost-benefit studies in education. Each particular instance of doing such a study will provide material for theoretical research and should be fully informed by it. The two units should also jointly administer the types of grant programs suggested in Chapter 3 for local and state

education agencies and for university researchers (see Recommendation D-5). Lastly, the two units should cooperate in the evaluation research program recommended in Chapter 2 for developing new methodology and for investigating evaluation processes (see Recommendation D-3).

Evaluation activities not directly related to a particular federal program, especially those concerned with developing knowledge on more effective educational interventions, should be supported or carried out by the research arm of the Department, that is, NIE and other units within the office of the Assistant Secretary for Educational Research and Improvement.

Coordination

Decentralization creates the problem of effective use of evaluation dollars that are dispersed among three levels of government and among many units of the Department of Education. A first but not sufficient requirement to address this problem is adequate reporting. The lack of information on the amount of evaluation dollars spent at the state and local levels has already been discussed, but even accounting for evaluation dollars within the Department becomes a matter of definition, depending on a particular unit's need or desire to display or hide its evaluation activities.[4] In Chapter 3 we recommended that Congress segregate evaluation funding at the state and local levels from program funds and administrative costs and require an annual accounting; we repeat those recommendations here.

Recommendation C-2. Congress should separate funding for evaluations conducted at the state and local levels from program and administrative funds.

Recommendation C-4. Congress should require an annual report from the Department of Education on all evaluation activities and expenditures, including those at the state and local levels.

The central unit should be responsible for preparing the annual expenditure report and an overview of the substance of all evaluation activities paid for by federal education funds, as it does now for its own activities.

Beyond reporting, however, the central unit should be responsible for coordination of evaluation throughout the Department. Coordination is critical because of the interorganizational complexities discussed in Chapter 3. Many different parties within the Department have a stake in evaluation, most especially the operating program units and the planning component, which is currently separated from the central evaluation unit. (See the discussion below on the placement of the central evaluation unit.) Coordination also should contribute to more efficient use of evaluation resources. For the four phases of evaluation--planning, design of specific studies and procurement mechanisms, review, and use of findings--there are several ways in which authority and control could be distributed, i.e., in which evaluation activities could be coordinated:

1. The head of the central evaluation unit or cognizant assistant secretary could have both the responsibility and the authority (that is, final sign-off power) for approving plans, design and procurement, findings, and their dissemination. Insofar as possible, this person (office) could also set up incentives for application of findings or sanctions against nonuse.
2. The central unit could have major responsibility for coordination of planning, for review of designs and quality of procurement (but no sign-off power), and for review of findings together with the initiating unit, with dissemination also shared with that program unit.
3. Besides carrying out its own projects, the central unit could provide technical assistance (when asked) to other units engaged in evaluation activities, but have no further authority or responsibility. In this case, coordination responsibility or authority would either be assigned to some other level (say, the Secretary's or Undersecretary's office) or not assigned at all, as was the case for the Education Division within HEW until recently. (While HEW's Assistant Secretary for Planning and Evaluation received evaluation plans from the whole Education Division, generally only those from the central unit were reviewed; see Appendix A.)

The Committee believes that, for each phase of evaluation, a different degree of sharing of responsibility and authority is appropriate. Relationships should also vary depending on the nature of the evaluation activity and the degree of expertise

residing in offices other than the central unit. We make some suggestions below as to coordinating mechanisms that strike a balance between totally centralized decision making (option 1 above) and autonomy for each unit (option 3 above). But we recognize that any (or no) coordination comes at a cost. The costs of no coordination at all include not only the wasteful use of evaluation dollars, but also the failure to use evaluation findings and the inability to cumulate knowledge about programs. The cost of any degree of coordination is time--more staff time for communication and more executive time for making decisions. Therefore, no matter what coordinative mechanisms are adopted, the Committee suggests that both the time invested and the results be tracked with some care, so that the effort to use evaluation resources wisely does not end up leading to negative results. For example, staff may get so occupied with meetings, with defenses against criticisms, and with waiting for decisions that they have inadequate time to produce procurement requests of high quality, to effectively monitor evaluation studies, to respond to modification requests from contractors or grantees, to review reports in detail, or to disseminate findings. Tracking of how well coordination procedures work should lead to their reexamination periodically, perhaps every 3 or 5 years. The rest of this section presents our suggestions for the Department with regard to coordination at each stage of the evaluation process.

Planning

We believe planning should be centralized, with all units--program, policy and planning, budget, research, etc.--involved at the staff level and with sign-offs required by each assistant secretary. The assistant secretary responsible for evaluation should take the lead for the coordination of planning. The central unit should carry responsibility for developing, together with the cognizant program units, a coordinated plan, including series of related studies, for each of the large federal education programs, as exemplified by those for Title I and P.L. 94-142. The central unit also should be charged with the coordination of all evaluation planning, even though the planning and execution of specific studies may be carried out elsewhere--a program office, the research unit, or even the local or state level.

We note the current attempt by the central evaluation unit to coordinate plans for fiscal 1981 and fiscal 1982 (see U.S. Department of Education 1980b, 1980c). We suggest coordination of planning not because we believe that control of all evaluation activities should be lodged in the central evaluation unit--we do not--but because there appears to be no overall evaluation planning with established goals and priorities for the Department. Until the Department develops such plans, it will be subject to ad hoc, arbitrary changes in direction. Such changes prevent the cumulation of incremental program information of the kind needed by decision makers both in Congress and within the Department. Improved evaluation planning will clarify data and information needs for evaluation and allow the Secretary to assign priorities to them in the context of other data gathering needs. Recommendation D-10, which speaks to this issue, is repeated here:

Recommendation D-10. The Department of Education should institute a flexible planning system for evaluations of federal education programs.

In Chapter 3 we emphasize that planning for evaluation cannot be a totally internal activity. Outside groups having a stake in a program must be consulted. Since the Department's top priority external audience is Congress, the Department needs to develop better liaison regarding evaluation activities with members and with congressional staff. Congressional aides have been very critical about the relevance, timeliness, and packaging of evaluation reports (see Zweig 1979). More involvement of congressional staff is needed in selecting basic issues and questions that can be answered by the evaluation process. The central evaluation unit, being more removed than program administrators from the politics surrounding particular education programs, should be charged with the responsibility of communicating with Congress about evaluation needs (see Recommendation C-1). Program units, on the other hand, tend to be closer to such constituency groups as representatives of target populations and educators charged with carrying out the programs; therefore, they should be responsible for obtaining their participation in the planning for individual studies as well as in the development of the overall plan.

Design of Studies and Procurement

Technical committees drawn from the staff of the central evaluation unit and from the Office of Educational Research and Improvement, supplemented by staff from the originating unit (if other than either of these two) should review and comment on all design and procurement documents. Final veto or sign-off power, however, should not reside with these committees but with the cognizant assistant secretary supervising the unit that prepared the design or the procurement instruments or grant guidelines. If technical or substantive criticisms are made by the reviewing committee, the cognizant assistant secretary should require responses from the originating unit that either refute the criticisms or indicate changes made as a result. If the central unit is the sponsor of the study, the process should be reversed, with the relevant program unit providing review. The central unit should also have staff available to provide technical assistance during the execution of a study, that is, when staff from other units monitoring an evaluation contract might call for assistance in reviewing progress or authorizing changes in study direction, design, test instruments, analytical strategies, and the like.

Review of Findings

The process for review of findings, either at an interim stage or in final reports, should be similar to that suggested for the design and procurement of studies. Technical committees drawn from the staff of the central evaluation unit and the Assistant Secretary for Educational Research and Improvement (possibly the same ones involved in the design and procurement phase) should review reports and associated materials. Comments should be forwarded to the originating unit, with a requirement for rebuttal or incorporation of changes responsive to the technical review. Program units should be afforded the same review opportunity for studies originating in the central unit. These internal reviews of designs and of findings should be preliminary to the external reviews suggested for each of these phases in Chapter 3.

Dissemination and Use

As recommended in Chapter 4, the originating unit should have the responsibility of building a dissemination and use plan into its original procurement document and of ensuring that such a plan is part of the accepted proposal and subsequent contract or grant. The originating unit's dissemination plan would be reviewed along with other features in the design and procurement phase. The originating unit should have the responsibility for carrying out the dissemination plan addressed to the primary audiences, who presumably are closely tied to the originating unit. The central unit may carry out dissemination to secondary audiences as it deems appropriate.

The central unit should also serve as the clearinghouse and coordinating center for information derived from all evaluation activities, including not only studies originating in the Department, but also those carried out by state and local agencies and even work relevant to education that may not have been federally funded or be concerned with federal education programs. The unit should be responsible for cumulating knowledge from these sources, reanalyzing data, and refocusing information necessary to suggest changes in legislation, in regulation, in program management, or in program intervention as evidence indicates. Other units, particularly the Department's research arm, should cooperate in this integrative function.

Functioning as something like a nerve center for evaluation information, the central unit should also be charged with getting relevant information to audiences that can act on it or are likely to have an interest in it, beyond the audiences already included in the dissemination plans for a specific study, as noted in the following recommendations from Chapter 4:

Recommendation D-13. The Department of Education should ensure that dissemination of evaluation results achieves adequate coverage.

Recommendation D-14. The Department of Education should observe the rights of any parties at interest and the public in general to information generated about public programs.

Recommendation D-15. The Department of Education should give attention to the identification of "right-to-know" user audiences and develop strategies to attend to their information needs.

To carry out these functions, the central evaluation unit should have a dissemination arm. Such a subunit could also devote time and energy to the communications problem. Too many evaluation reports are cloaked in jargon that is unintelligible to decision makers and other nontechnical audiences. Although most evaluation contracts now specify that an executive summary must accompany the final report, insufficient attention to effective packaging of evaluation findings continues to be the rule. Too many reports are not read or not understood by busy policy makers or by outside groups that could use the information because the language of the reports is unclear. There is a real difference between ambiguity of findings, which can be expected for large, complex programs that encourage local variability, and the inability to present those findings in understandable prose. Personnel in the central unit charged with responsibilities for disseminating evaluation findings must perform the translation from scientific jargon to clear English when such translation has not been adequately done by contractors or grantees. In order to be effective in this role, however, central unit dissemination staff must possess requisite communication skills and must be insulated from political pressures that otherwise will quickly undermine the credibility of their work.

Location of the Central Evaluation Unit

We have proposed that the central evaluation unit be charged with important coordinating responsibilities in developing the Department's overall evaluation plan and in synthesizing and disseminating evaluation-related knowledge derived from all sources. We do not foresee that these responsibilities can be adequately carried out as long as the central evaluation unit is subsumed within the management arm of the Department. The implicit message of this arrangement is that only the management perspective of evaluation is considered a high priority.

While some members of the Committee favor the assignment of an assistant secretary to the evaluation

function and other members disagree with this particular approach, all members agree that evaluation is currently too far removed from the top policy circles in the Department. This distance makes it unlikely that the central unit would be able to effectively coordinate evaluation activities across the Department. Yet this unit is probably the only one that could provide the Secretary with a comprehensive view of the amount of money being spent for evaluation, of the types of evaluations under way, of the effectiveness of the various disparate parts of the evaluation "system," and of the potential for using study findings to make more informed decisions about programs.

A variety of administrative mechanisms can be used to improve the current situation. For example, the Department could make the unit a separate office immediately responsible to the Secretary or the Undersecretary to provide the needed access and credibility. A precedent exists in the case of the Office of Bilingual Education and Minority Languages Affairs. Another possibility for making the unit more effective is to couple it more closely to the major planning function. We would caution, however, that some separation should be maintained between evaluation and budgeting. Though these functions are often located together, subservience of evaluation to the budgetary process is as counterproductive as using evaluation to chastise or reward individual program managers, apparently the Department's current direction. If budgetary decisions and the handing out of rewards or sanctions are to be the main functions of evaluation activities, they will be devalued as a means for program improvement. As long as evaluation is seen as a threatening rather than as a supportive activity, those who are subject to the threat will find ways of defusing it by covert lack of cooperation or outright opposition. As a result, evaluation activities will continue to be curtailed, and results consigned to the dusty shelves of unused reports.

CONSTRAINTS

No matter how evaluation responsibilities are assigned and organized, the Department has to face some important constraints that are only partly under its control: constraints of budget, of staff, and of process.

Budget Constraints

Pressures to reduce the federal budget have taken their toll of evaluation projects since many such projects are discretionary items. In fiscal 1980, the central evaluation unit was not able to initiate any new studies except those expressly mandated in law or made possible through specific set-asides for evaluation (for example, the half-percent of program funds mandated for national evaluation of Title I). However, as a consequence of the dispersion of evaluation responsibilities, the central unit spends less than half the money invested in evaluation at the national level: $19.6 million of the $43.4 million estimated for the whole Department (including the inspector general) in 1980. (For an estimate of evaluation spending by various components of the Department, see Appendix A.) As already noted, additional federal funds are spent at the state and local levels for evaluations. With respect to accountability of spending for evaluation, then, there is trifurcation of responsibilities: the central evaluation unit, program units of the Department, and states and localities. But only the central unit has been the object of major scrutiny and a decreasing budget, while responsibilities and funds are idiosyncratically assigned by legislation or executive practice to selected federal program offices and to state and local authorities, often without similar scrutiny of performance.

In the last 3 years, the Department has not been successful in convincing the appropriations committees of Congress that an increased budget for the central evaluation unit was warranted, even while authorization committees have asked for more evaluation. In fact, funds have been appropriated for evaluation activities outside the central unit, and Congress has spent additional funds on its specially commissioned studies. These actions appear to reflect an inability to make a convincing case for the work of the central unit, although it is not clear whether the apparent dissatisfaction leading to decreasing budgets has been warranted by inadequate performance or has been due to greater visibility and scrutiny.

Staff Constraints

We have commented previously that the complexity of any evaluation process beyond tracing money and counting

people calls for particular technical skills and social science knowledge. Staff members responsible for evaluation programs should be well grounded in the theory and technical knowledge of a variety of social and behavioral science disciplines. They must also be in touch with the perspectives represented by various interest groups who represent program beneficiaries and service providers. Having practical program knowledge and experience is helpful as well, though this can be supplied through cooperation of the relevant program units.

The staffs of evaluation offices have to be able to explain issues involved, to develop questions to be answered, to suggest methodologies for research, and to prepare statements of work for RFPs and other procurement documents. They have to participate in panels that establish criteria and make recommendations for the selection of winning contractors. They are also likely to negotiate substantive contract issues before awards are made. After a contract is awarded, the cognizant staff person or project monitor must be able to provide technical assistance if needed by the contractor, assist in clearing survey instruments, and rule on modifications requested by the contractor. In order to respond effectively to contractor requests, the staff person needs to understand through first-hand research experience whether requested changes are appropriate or not. Throughout the course of a project, staff members must provide professional review, including careful examination of final reports.

The unusual array of skills, experience, and diverse perspectives needed to manage evaluation programs is not easily obtainable. The Department is limited in its ability to recruit top-quality staff in adequate numbers because of personnel ceilings and other civil service constraints. The Committee has not had time or opportunity to assess the qualifications of the staff in the central evaluation unit, though there are obvious gaps in disciplinary expertise, in the representation of minorities (see Chapter 3), and in hands-on experience with field-based applied research studies of the kind being designed and monitored by the unit. What seems clear, however, is that the current deployment of staff and assignment of responsibilities does not take advantage of the collective expertise in the central unit and in the research components located elsewhere in the Department (for example, in NIE or the National Institute

of Handicapped Research). External requirements and internal practice with respect to planning, procurement, and clearance have severely constrained the time needed to do quality work; the combined effect of conceptualization of large-scale studies by single individuals or small groups (as has been the practice in the central unit) and the need for early closure on technical detail is to leave little room for creativity. Nor is it likely that the expertise represented by the central unit is duplicated in every program office with evaluation responsibilities. In some cases, evaluation work carried out elsewhere in the Department may open up innovative ways of planning and designing studies, as has been true for the NIE compensatory education study and the evaluation plan for P.L. 94-142. Both these instances come from units with research expertise. Other program offices, however, are unlikely to be able to staff up for the evaluation responsibilities now assigned them or that they might acquire in the future.

Recommendation D-17. The Department of Education should examine staff deployment and should establish training opportunities for federal staff responsible for evaluation activities or for implementation of evaluation findings.

The Department should consider alternative ways of using the technical staff within the central unit and evaluation staff in other units. Duties and responsibilities would vary according to the amount of government control exercised by staff: grants and consultancies entail the least control, contracts and evaluation teams configured of government staff and outside experts more, and in-house studies the most. Figure 5, adapted from one originally prepared by Wargo (1980), illustrates the three major relationships between government staff and outside experts and some of the characteristics of each alternative. The Department has largely used the contracting method, though in-house analysis has been characteristic of selected areas, particularly for postsecondary programs. There may be evaluation work that is better addressed by the grant/consultantship method (see Chapter 3) or by an evaluation team. In part, the choice depends on the type of evaluation work to be undertaken, but staff capability is an equally important criterion. The greater the degree of government involvement, the greater the skills

Government/ Expert Relationship	Evaluation Role		Characteristics					
	Government	Grantee/Contractor/Consultant	Qualifications of Contractor Selection Panel	Government Technical Expertise	Government Resources (time and staff)	Government Control	Contractor/Grantee Freedom	Probability of Timely Products
Grant/ Consultantship (National Science Foundation) (National Institutes of Health)	• Defines problem area • Solicits proposals for area • External peer review panel selects grantee • Monitors proposed implementation	• Develops objectives, methods, and plan for evaluation • Conducts the evaluation with little guidance or technical support from government • Produces a final report without government input	High	Low	Low	Low	Low	
Contract (U.S. Department of Health and Human Services) (U.S. Department of Education)	• Defines evaluation objectives • Process oriented statement-of-work • Internal review panel selects contractor • Monitors all technical activities and expenditures • Some guidance, technical assistance, and direction provided	• Develops methods and implementation plan for evaluation • Receives some direction and technical support from government • Produces a final report that is reviewed and approved by government	Moderate	Low to moderate	Moderate	Moderate	Moderate	Moderate
Evaluation Team (Food and Nutrition Service of the U.S. Department of Agriculture)	• Specifies evaluation objectives and develops evaluation design • Design, process and management-oriented statement-of-work • In-house technical and program experts select contractor • Organizes, directs, and controls evaluation team consisting of evaluation and program staff, advisory panel, consultants, contractors, and subcontractors	• Critiques evaluation design and statement-of-work and suggests improvements • Becomes a key member of evaluation team • Participates in design, data collection, data analysis, and reporting • Receives day-to-day direction from government team director • All plans and products are developed as a team effort	High	High	High	High	Low	High
In-house Evaluation	• Substantially all work done by government staff	• Occasional reviews • Small contracts for data collection or analysis • Commissioned papers	–	Very high	Very high	Very high	–	High

FIGURE 5 Government evaluation relationships with experts.

and the greater the number of personnel that are required. The grant/consultancy method allows maximum contribution from the field; the evaluation team concept, though it requires skilled staff, still allows participation by outside experts while making possible quick response (see Recommendation D-11).

For any given staff role in evaluation work, there must be an adequate number of staff, and they must have the requisite training and experience. Moreover, a work atmosphere conducive to attracting good staff and holding them must be provided. The Department should examine the number and types of positions assigned to evaluation activities in light of responsibilities and work load (number of RFPs to be prepared, contracts monitored, final reports to be analyzed, etc.) within the central evaluation unit and wherever else evaluation activities are carried out. It should also examine the extraneous and counterproductive demands that are imposed on staff through internal procedures that could be simplified. Consideration of personnel needs should also take into account the time required for the type of training suggested below.

The academic and experience background of personnel charged with evaluation responsibilities should be examined in connection with the tasks they are required to perform. This applies to staff in program units as well as to staff in the central evaluation unit. If necessary, training programs should be conducted to prepare staff members for the writing of work statements, to familiarize them with new evaluation techniques, and to strengthen their knowledge of selected social science disciplines. Handbooks should be prepared for persons who monitor the substantive aspects of evaluation contracts. If federal personnel lack field experience, a determined effort should be made to expose them to practical situations affecting the evaluation process. Short-term field assignments could be used to provide national office personnel with needed practical experience.

At the same time, as noted in Recommendation D-4, program executives and staff as well as other line executives outside the units specifically concerned with evaluation would benefit from greater knowledge of the language of evaluation and how evaluations can be used. Program managers at the federal level play a variety of important roles in the evaluation of education programs. Program managers often suggest which of the national

programs within their purview ought to be evaluated. Such decisions reflect a concern for important issues in program delivery and program effects that must be translated into the evaluation questions to be asked. Program managers need to provide key questions to the evaluation experts, spell out what they consider to be indicators of successful performance, and so on. During the course of a study, managers often assume the role of co-monitor and may accompany the technical evaluation team into the field to assess progress. At the end of an evaluation, managers play an important role in the interpretation of the results. All of these roles would be significantly improved if managers had a better understanding of the basic principles of evaluation. Training for federal staff on relevant topics should be instituted. Seminars in evaluation methodology and in applications of social science research to program improvement could be given by technical staff from the central evaluation unit and the Department's research arm and by external evaluation experts. A newly created training unit within the Department, the Horace Mann Institute, provides an appropriate internal vehicle. Other alternatives include specially tailored offerings by the Federal Executive Institute and the Graduate School of the Department of Agriculture (which is scheduled for transfer to the Department of Education). In addition to providing some technical knowledge, training should increase the understanding of program managers about what kind of information evaluation can and cannot provide.

Process Constraints

In a number of ways, the Department's own procedures inhibit its ability to produce timely and relevant evaluation studies of high quality. These procedures affect each stage of the process: producing a coherent set of plans for the whole Department, designing individual studies, procurement, launching the study once a contract or grant has been awarded, monitoring its progress, and disseminating its findings. A typical time chart for a relatively straightforward study that is intended to take 12 working months for design, data collection, and analysis is pictured in Figure 6: under current conditions, a lead time of 3 years is necessary.

Total anticipated
working time: 12 months
Contract duration: 18 months
Total elapsed time: 3 years

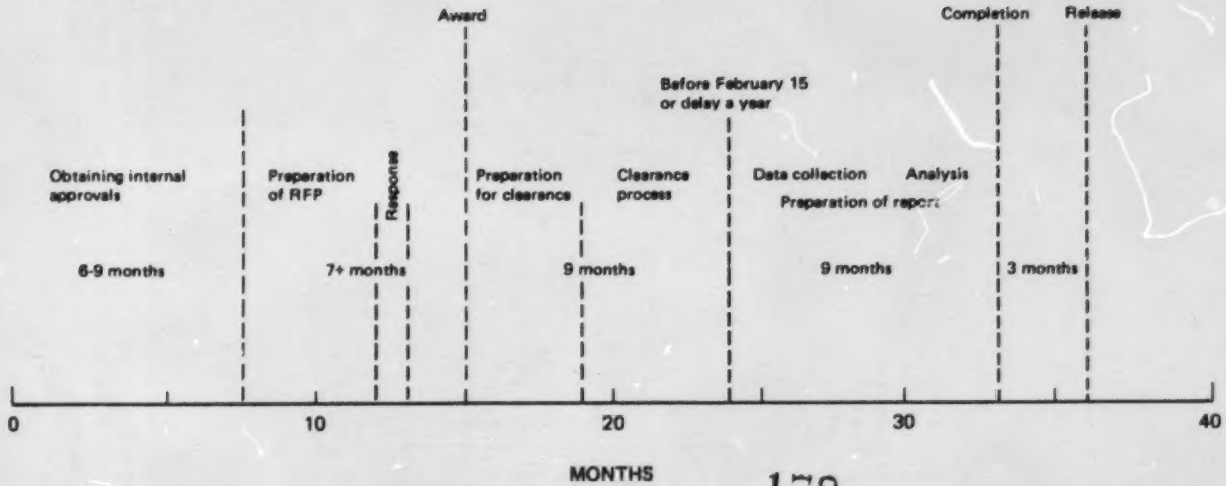

FIGURE 6 Time chart -- typical evaluaton study.

Planning and Design

In recent years, the Department and its predecessors have tried to introduce planning mechanisms that would help set priorities and achieve greater coordination (see Appendix A). One unfortunate consequence has been to delay approval of studies, as illustrated by the 1980 procurement schedule (see Chapter 3, Table 1). Delays in the planning process may create postponement of studies into a new fiscal year. An even more adverse effect (also noted in Chapter 3), has been the unwarranted compression of time for the most difficult intellectual work: design of a study by federal staff and by responding proposers. The planning process is under the control of the Department; presumably, as planning mechanisms become better established, time delays can be reduced.

Procurement

The procurement process or any alternative mechanism for getting the work done entails negotiations within the Department between the unit designing the evaluation and the relevant program unit (if the study is not conducted there) as well as other parties at interest, for example, the Office of Civil Rights, the offices of the Undersecretary or the Secretary, the Assistant Secretary for Planning and Budget, or the National Institute of Education. In selected cases--for example, in Title I evaluations in which the legally constituted advisory council participates--outside groups are also involved. (We note that our recommendations in Chapter 3 with respect to opening up the procurement process in order to enhance the quality of evaluations will further complicate the process and may introduce additional time lags.) A major party to such negotiations is the Grant and Procurement Management Division, which must approve all procurement instruments or grants announcements. The federal competitive procurement processes as interpreted and enforced by this division take, on the average, 6 months from review of the statement of work prepared by the initiating office to the time of award, exclusive of response time allowed between announcement of RFP or grant guidelines and the proposal due date. Noncompetitive processes, such as sole-source awards or unsolicited proposals, can be completed in shorter time,

but they are seldom employed because they are more easily subject to the charge of favoritism.

The objectives of competitive procurement are to get the best buy for the evaluation dollar and to assure a fair process.[5] As the competitive procurement mechanism now operates, neither objective is likely to be attained: only a few performers are able to compete, and the costs of evaluations are increased by the considerable--though hidden--costs of the process (preparing RFPs, writing lengthy proposals) that are built into internal staff salaries and the total costs of the resulting contracts. At the same time, the losses that result from the process are considerable: limitations on creativity and quality, time delays, and wasteful use of human resources inside and outside government. Though the way the government obtains research services is generally regulated by statutes that pose external constraints, any federal agency has considerable latitude in its interpretation of applicable regulations. Differences in operating procedures are readily discernible to individuals familiar with several agencies. The Department of Education would profit by examining the more flexible strategies of other agencies.

Launching a Study

For any study that involves collecting the same information from nine or more respondents, OMB clearance (which may be delegated) must be obtained. When this requirement was first instituted by OMB, there were three reasons: to assure adherence to statistical standards, to allow OMB to judge the economic impact of a proposed study, and--most importantly in recent years--to reduce the burden on respondents imposed by the multiplying demands for data. Reduction of the response burden remains a major objective for both the administration and Congress. As more and more data collection efforts in education became subject to clearance (e.g., program report forms, statistics gathered by NCES, all evaluation and research studies resulting in information to be delivered to the government), the Education Division within HEW set up its own internal screening mechanism, the Educational Data Acquisition Council (EDAC), to facilitate OMB clearance. In parallel, the chief state school officers, concerned with the time and money consumed by responding to federal data requests, also

obtained the right to clear study designs and instruments through their Committee on Education Information Systems (CEIS). The 1978 education amendments (P.L. 95-561) created the Federal Educational Data Acquisition Council (FEDAC, the successor to EDAC) as the designated body to replace OMB in controlling demand for data in education, with CEIS as an official participant. As noted in Chapter 3, the 1978 amendments also introduced the requirement for notification and availability by February 15 of data collection instruments to be used in the following school year. The effects of the clearance provisions are illustrated by the following examples.

A contract for a study on sex equity in vocational education, mandated by Congress, was awarded in late July 1977.[6] By early December, with concentrated efforts by the contractor and the federal project officer, the forms clearance package was sent to the OE clearance officer who had the job of reviewing submissions to EDAC. The clearance officer sent the package forward 2 months later, in early February 1978. EDAC clearance was obtained on March 1, and the package was then forwarded to the Assistant Secretary of Education whose clearance was needed before submission to OMB. This clearance was obtained on March 22, and OMB clearance, the final hurdle, received on April 14. Because the study had high visibility and because there were relatively few instruments involved, clearance took 4-1/2 months, close to the minimum time averaged during that period. There were, however, important changes in instrumentation: a major questionnaire dealing with attitudes was eliminated at the stage of OMB clearance (as were most such items in other types of instruments). The ostensible reason for the deletion was that the legislation did not require collection of that type of information. In this way, a review of 3 weeks overrode the work of 4 months--which included extensive consultation with parties at interest--by the contractor and the project monitor.

Another example concerns a planned study of Indian education scheduled for completion in order to feed into the reauthorization process for the legislation, due to expire in 1983; hence, the study results should be available for hearings likely to be held in 1982. Approval for the study was not received from within the Department until May 1980; an award was made on September 30, 1980. Even more than for the sex equity study, the choice and design of instrumentation will have to include careful consideration of the sometimes conflicting

sensitivities and points of views of the populations being served, the service providers, and the framers of the program--both legislative and executive. But the previously noted requirement for February 15 notification and availability of instruments means that there were then only 4 months available to flesh out the design of the study, including methods, measures, and specifics of data collection, and for getting the whole package approved through the clearance mechanisms. If the February 15 deadline cannot be met, either a waiver will have to be obtained or the study postponed for a whole year. Not only will postponement add considerably to its cost, but it will make the study irrelevant to the purpose for which it is being undertaken, since data collection could not even begin before fall of the year (1982) in which the congressional hearings are to be held.

In another case, a recent 12-month study of OE evaluation projects, clearance procedures had not been completed by the time the study was done and the contract had ended. The choice was to delete the data collection aspect of the study or to proceed in the absence of required clearance. The first would have led to a year or more delay in the study, the second to illegal procedures.

Carter (1977) describes two other examples. For the sustaining effects study of Title I, a very complex study using 10 different types of measures, clearance of the first 2 of the 10 sets of measures took 8 months. The clearance packages for all 10 sets of instruments totalled 1,412 pages; Carter's estimate of the cost for the clearance process (not including development of the instruments) was $155,500 (in 1976 dollars). The second example involved a congressionally mandated study of Title I services for neglected or delinquent children; clearance took 6 months. Carter notes (1977:11):

> Almost without exception the reviewers, either at OE or OMB, had never been to an institution for the neglected or delinquent. Many of them were not aware of the results of our clinical pretests, yet they felt they knew how and in what form the material should be collected. Again, office-generated expertise superceded actual field experience.

The last example that we cite provides an interesting illustration of how the drive toward reducing

respondents' burden has created a lack of information in an area that would appear to be directly relevant to the federal role in education. Larson (1980) recently studied the collection of race, ethnic, and gender data on participants in federal education programs. Collection of such data is rare except in those cases were specific populations are targeted, for example in ESAA (desegregation assistance) and bilingual programs, for which information on the targeted group is collected. Other exceptions are research studies not directly coupled to specific program evaluations, such as the National Assessment of Educational Progress (1978). Yet given the overall mission of the federal education programs to increase equal educational opportunity, it is somewhat surprising that programs as a whole are not evaluated with respect to their effectiveness in improving education for ethnic or racial minorities and females. Recently, regulations have been changed to make possible the gathering of data on race, ethnicity, and gender in grantee applications for funds, but the gathering of such data for program assessment has always been possible. That it is still largely absent can in good part be ascribed to budgetary and clearance constraints, which drive any evaluation study toward collecting only those data for which there is an express "need-to-know." And "need-to-know" is often equated with specific mention of a subgroup in legislation for the program or its evaluation.[7] One can only conclude that current clearance procedures, whatever other purpose they may serve, have had the effect of minimizing the ability to obtain information crucial to meeting federal goals in education. In part, that effect may have been the result of considering each study in isolation as it went through the clearance process and attempting to minimize response burden case by case. We note that the process is in the midst of change.

At this time, the intent (expressed both through executive action by OMB and through proposed legislation in Congress) is to manage the reduction of response burden more like fiscal budget allocations: each agency submits to OMB an information collection budget that requests an allocation of the total number of burden hours necessary to carry out its management, evaluation, and research responsibilities. On the basis of the submission, an allocation will be made by OMB, probably with a 10-15 percent cut in response burden, a goal announced for 1981. (Another cut is to be made the

following year for a total cut of 30 percent over 2 years.) The agency will then reallocate the information collection budget internally. In the case of the Department of Education, of 8-1/2 million burden hours that were requested, some 7 million hours, or more than 80 percent, is allocated to program administration and compliance, that is, information to be submitted by program applicants and grantees, information needed for fiscal audits, and information needed to enforce compliance with civil rights laws. OMB will delegate the responsibility for clearance of specific studies and instruments to the agency's internal mechanism when it is deemed to be functioning well or the law so specifies, as is the case with FEDAC.[8]

The evolution of clearance procedures from reviewing individual studies to a process that assembles all proposed data collection in one document should allow top-level Department officials to consider the data needs of evaluation and research in a forum where they are presented together with those of program administration, enforcement (for example, the data needs of the Office of Civil Rights), auditing, and the periodic gathering of general statistical data and indicators (for example, the data collected by NCES). It may also encourage the coordination of studies across organizational units so that studies proposed by one unit can use data collected elsewhere. The Department should be alert to the opportunities for more coherent evaluation and data collection activities offered by the new clearance process.

Progress

After clearance, time delays in the progress of a study will be occasioned by the inevitable discrepancies between assumptions in the study design and actual conditions in the field. The nature of the program activity the individuals engaged in it, the willingness of respondents to cooperate, the presence of documentation--all will present unforeseen difficulties, particularly if the timing of the study is thrown off schedule by the clearance process. Other delays may be introduced by the researchers themselves, who are wary of potential criticism and therefore employ time-consuming procedures to assure technical impeccability that does not enhance the quality of the study (e.g., by meticulous

but unwarranted cleaning of data sets). Federal monitors are often not in a position to know whether such procedures are necessary or which delays in the progress of the study are legitimate. Sanctions against contractors who do not deliver products on schedule are seldom enforced since extenuating circumstances can always be cited. This is particularly true because of the inability of federal monitors to respond in timely fashion to simple, much less to complex, requests for changes in the study plan, either because of their workload or because they do not have authority on their own to rule on the requested change. Hence, delay becomes no one's responsibility.

Dissemination

Within HEW in recent years, dissemination of study findings has been held up in the Secretary's office for many months because of the perceived need to have the Secretary informed and able to respond to inquiries from the media and the public. For example, for the study on sex equity in vocational education (referred to above) the findings were not released until nearly a year after the final report was submitted in April 1979. The delay appeared to be occasioned by the controversial subject of the study rather than by the findings themselves, since no changes were made in the final report (Harrison and Dahl 1979).

The advent of the new Department of Education brought about new rules: a directive on release of findings (U.S. Department of Education 1980a) provides 10 days, after acceptance of the study report by the central evaluation unit, for response from program and other offices. Reports are to be released after the 10-day period, accompanied by the comments received. However, this rule does not deal with delays occasioned by disagreements between the sponsoring office and the performers or with release of findings by sponsoring offices other than the evaluation unit. For example, one study report submitted in January 1980 (David 1980), whose findings were in dispute between the sponsoring office (the Assistant Secretary for Program Evaluation in the former HEW) and the then central evaluation unit for the Office of Education, had still not been released 10 months later. Congress in particular has been concerned with such delays: on occasion, the suspicion has arisen

that findings were not being released because they did not support the positions of the current administration with respect to the program that was the subject of the study.

In summary, process constraints have become severe in recent years. It is not unlikely that, during the time it takes to complete a study, conditions in the field or policy concerns regarding a specific program will change, making the findings of the evaluation, when they do become available, of little interest.

Recommendation C-5. Congress should authorize a study group to analyze the combined effects of the legislative provisions and executive regulations that control federally funded applied research.

Congress has been dissatisfied with the lack of relevance and timeliness of much evaluation work in education. One of the causes for delay and for irrelevance is the accumulation of rules and regulations governing the relationships between sponsor, researcher, and action site or agency, i.e., the Department of Education, the contractor, and the state/school/student. The whole process of funding and carrying out applied research about social services is severely constrained by these rules and by the operating precedents they have engendered. Almost every provision now on the books or enforced through executive practice may be justified when considered in isolation: to prevent favoritism in contract awards, to protect respondents from a heavy burden of requests for data, to protect the privacy of individuals, to require disclosure of information related to the public business, and so forth. Their combined effect, however, has been to lengthen the time needed for compliance, to increase the costs both within government (through greater investment of staff time) and of extramural contracts and grants, and to discourage whole classes of potential performers from participating. Though laws sometimes specify time limits for procedures (e.g., for OMB clearance of data collection instruments), they are seldom observed in practice.

To date, most of the concern has been with instituting procedures to guard against possible transgressions in initiating and carrying out applied social science research. The trade-offs between the benefits of such safeguards and the obstacles they create to producing

timely and relevant applied research at reasonable cost have been largely ignored. It is not clear how much of the negative effect is due to the laws and regulations themselves and how much to the interpretation and operational mechanisms within any given agency. For this reason, the recommended analysis must go beyond the problems within a single agency or department and examine the process as it works in several different agencies.

Recommendation D-18. The Department of Education should take steps to simplify procedures for procuring evaluation studies, carrying them out, and disseminating their findings.

The Committee has recommended (see Chapter 3) that the means by which the Department solicits, selects, and funds evaluation studies be expanded in order to allow more performers to participate. The competitive procurement process involving issuance of an RFP and awarding of a contract to the highest-ranked or lowest-priced bidder is by far the most commonly used form of solicitation. This type of solicitation was designed by the government for the purchase of highly specifiable goods or services so that contracts could be awarded on the basis of the best buy for the dollar. The rules that have accumulated over the years to ensure fair competition have shifted considerable control of the process from the technical specialists (for example, in the evaluation unit or in a research office) to the contracting office, the interpreters and enforcers of the government procurement regulations. This has had serious implications for the quality of evaluations (discussed in Chapter 3) and has increased the time needed for arriving at compromises acceptable to all. The process has become not only restrictive and inflexible but very costly in internal staff time and for potential contractors. And since the cost to contractors is recouped eventually from the government through overhead and in other ways, the government bears the double burden.

Recent criticisms (U.S. General Accounting Office 1980a, Gup and Neumann 1980) have focused on abuses possible in the use of consultants and sole-source contracting. The Committee is not convinced that the cost of rules instituted to prevent such abuses is not higher than the cost of the abuses themselves. The various means (other than competitive procurement through

RFPs) that can be used to obtain evaluation work are discussed in Chapter 3 (see Recommendation D-5). The Department must be more deliberative in choosing whether to use competitive procurement, sole-source contracting, 8-A contracting, cooperative agreements, basic ordering agreements, or grant awards, within the limitations of the law (see P.L. 95-224).

The major sources of delay, once a contract or grant for a study has been awarded, must also be identified and addressed. This applies particularly to clearance procedures and to the in-house handling of requests for changes in study design, sampling procedures, testing, analysis, time frames, and the like. While a request for a modification is being considered, the evaluation may be in a hold status, pending the sponsor's response. In such cases, the sponsor's nonresponsiveness can contribute materially to delays in project completion, with the effect of cost overruns.

At times, failure to perform on time is the responsibility of the contractor or grantee. The Department should institute and enforce sanctions and incentives to encourage timely performance. For example, some agencies have included clauses in contracts that provide that nontimely performance (products not delivered by the specified date) can be a basis for nonpayment of up to one-third of the contractor's fee.

Most contracted evaluations have provisions for review of delivered products by the project officer, which often may entail extensive internal review and clearance. To the extent that these reviews are not completed in an efficient and timely manner, the projects are subjected to time delays. Such delays may be as injurious as budget overruns, leading to delays in dissemination of findings and charges of lack of timeliness. Because of the possible cost of such delays, Recommendation D-13 (see Chapter 4) seeks to limit the period of control over evaluation results. The Committee is not advising against review: quite the contrary. It is advocating that the time taken for internal review be shortened in favor of making findings freely available to stand the test of the marketplace. In the long run, this will both increase the quality and improve the chances of appropriate use of evaluation results.

NOTES

1 There are exceptions. Political appointees given the job of reducing the budget will have reasons to find reduced needs.

2 At present, the Office of Civil Rights (OCR) is funding a study to review testing and evaluation instruments used with handicapped persons and another study to identify the factors that cause overrepresentation of minority children in programs for the mentally retarded. OCR has also funded cost-benefit analyses of programs mandated under civil rights legislation (O'Neill 1976).

3 For fiscal 1980, the budget for the Department of Education was $14.2 billion. For ESEA Title I, the 1980 budget provided $3.2 billion; for Education for the Handicapped, $1.05 billion, and for Rehabilitation Services and Handicapped Research $932 million; for vocational education, $928 million; for impact aid, $825 million; for emergency school aid, $249 million; and for bilingual education, $167 million.

4 As an example, when the National Institute of Education was under an edict from its governing body, the National Council for Educational Research, to increase the percentage of funds spent for basic research, it shifted its labeling of certain activities from "evaluation" to "research." Since the boundaries are often fuzzy, this kind of redefinition is not infrequent. As a counterexample, nearly $1 million allocated to the evaluation of Title VII (bilingual education) were reprogrammed in fiscal 1980 by the former Assistant Secretary for Education in HEW to support further development of "Villa Alegre" (the bilingual analog to "Sesame Street"), a decrease of more than one-third in the actual evaluation budget, though reporting figures stayed unchanged (see Appendix A).

5 "Best" has different connotations in different instances: it may mean the lowest-priced proposal of those technically acceptable; it may mean the lowest-priced proposal of those exhibiting high degrees of excellence; or it may mean some combination of these and other criteria spelled out in the RFP.

6 The information on this study was provided by Robert Maroney and Dorothy Shuler of the Office of Program Evaluation, the central evaluation unit. Their help in tracing the clearance procedures and other process steps is gratefully acknowledged.

7 In her study, Larson gives some additional reasons for the absence of data on race and sex variables: such data are deemed to be irrelevant or dangerous, they raise costs by requiring larger samples, and they are the concern of enforcement rather than of evaluation staff.

8 FEDAC has a permanent staff of four professionals, augmented by three to four professionals on detail from other units or from outside the Department. From time to time, however, FEDAC staff are themselves detailed for considerable periods of time to other duties. Staff shortage has been a major cause of delays in obtaining clearance.

Glossary

AERA	American Educational Research Association
AFT	American Federation of Teachers
AIR	American Institutes for Research
ARROE	American Registry of Research and Related Organizations in Education
ASPE	Assistant Secretary for Planning and Evaluation
ASPIRA	An educational research group oriented toward Puerto Rican interests
BEH	Bureau of Education for the Handicapped (OE), now Division for Special Education and Rehabilitation Services
BOAE	Bureau of Occupational and Adult Education (OE), now Division of Vocational and Adult Education
CCSO	Council of Chief State School Officers
CEIS	Committee on Evaluation and Information Systems
CENTRAL (EVALUATION) UNIT	formerly the Office of Program Planning, Budgeting, and Evaluation (OPPBE/OE), later the Office of Evaluation and Dissemination (OED/OE), now the Office of Program Evaluation (OPE/ED)

COSSMHO	formerly the Coalition of Spanish-Speaking Mental Health Organizations, now the National Coalition of Hispanic Mental Health and Human Services Organizations
CRS	Congressional Research Service
DISTAR	A reading program for primary grades
DOL	U.S. Department of Labor
ED	U.S. Department of Education
EDAC	Educational Data Acquisition Council
EDUCOM Inc	A private corporation performing educational research and development
ERIC	Educational Resources Informacion Center
ESAA	Emergency School Assistance Act
ESAA-TV	A series of television programs aimed at minority group children of school age
ESEA	Elementary and Secondary Education Act
FEDAC	Federal Educational Data Acquisition Council
FNS	Food and Nutrition Service of the U.S. Department of Agriculture
FY	Fiscal Year
GAO	U.S. General Accounting Office
GPMD	Grant and Procurement Management Division (OE)
HEW	U.S. Department of Health, Education, and Welfare
HHS	U.S. Department of Health and Human Services
IDEA	Institute for Development of Educational Activities

IEP	Individual Education Plan (..L. 94-142)
IG	Inspector General
ISA	Intermediate Service Agency (set up by SEAs and LEAs to provide services to LEAs)
ISD	Independent School District
JDRP	Joint Dissemination Review Panel (OE-NIE)
LEA	Local Education Agency
MDRC	Manpower Demonstration Research Corporation
NAACP	National Association for the Advancement of Colored People
NCES	National Center for Education Statistics
NEA	National Education Association
NIE	National Institute of Education
NIH	National Institutes of Health
NSF	National Science Foundation
OE	Office of Education
OED	Office of Evaluation and Dissemination (central evaluation unit in OE)
OMB	Office of Management and Budget
OPE	Office of Program Evaluation (current designation of central evaluation unit in Division of Management, ED)
OPPBE	Office of Program Planning, Budgeting, and Evaluation (former title of central evaluation unit in OE)
PAC	Parent Advisory Committee (Title I, ESEA)
P.L.	Public Law (for example, P.L. 94-142, Education for All Handicapped Children Act of 1975)

R&D	Research and Development
RDD&E	Research, Development, Dissemination, and Evaluation
RDU	Research and Development Utilization Program (NIE)
RFP	Request for Proposal
RFQ	Request for Qualifications
SBA	Small Business Administration
SDC	Systems Development Corporation
SEA	State Education Agency
TAC	Technical Assistance Center (Title I, ESEA)
USOE	U.S. Office of Education

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APPENDIX

A

Federal Evaluation Activities in Education: An Overview

Elizabeth R. Reisner

Federal funds support a broad range of program evaluation activities in education. Such activities range from national studies involving achievement testing of thousands of students to local assessments of federally supported projects in individual school districts.

This paper is intended to provide an overview of those federal evaluation activities that are designed to yield information on federal education assistance programs. The first section of this paper describes the major evaluation activities of each of the organizational units making up the former Education Division of the former U.S. Department of Health, Education, and Welfare (HEW) and certain other units. Taken together, these units constitute the main offices currently conducting evaluation activities in the U.S. Department of Education (ED). Information on evaluation activities of these offices is presented in tabular form and contains (1) a listing of the major federal education programs being evaluated by each of the organizational units sponsoring education evaluations, (2) a description of each unit's principal evaluation objectives, and (3) a rough estimate of the fiscal 1980 funds used for evaluation by each of the units.

The author is a senior policy analyst with NTS Research Corporation in Washington, D.C. Previously, she had staff responsibility for the review of evaluation planning in the Office of Education.

The second section of this paper provides anecdotal information on federally supported evaluations conducted by state and local agencies. The third section describes the evolution of the federal role in the evaluation of education programs. The final section describes the process used for deciding what national studies of federal education programs are conducted and what questions those studies address.

Information for this study was collected in interviews with federal managers whose offices are responsible for conducting program evaluations in education as well as from the works listed in the references. In several instances internal memoranda of HEW, the Office of Education (OE), and ED were used as source materials. Because the intent of the paper is to present a broad overview of the topic, it has been necessary to summarize detailed information in a number of cases; the author accepts full responsibility for any unintentional errors of fact or emphasis that may have occurred in preparing the summaries.

Authority for the Department of Education was enacted on October 17, 1979, as P.L. 96-88, the Department of Education Organization Act. The act permitted a 6-month implementation period prior to official start-up of the new department. ED was officially inaugurated on May 4, 1980. In this paper, policies and procedures in effect prior to that date are described using the earlier organizational terminology (e.g., OE and the Commissioner). Current terminology (e.g., ED and the Secretary) is used to describe activities occurring after May 4, 1980.

MAJOR EVALUATION ACTIVITIES OF THE HEW EDUCATION DIVISION

Table A-1 provides summary descriptions of federally supported evaluation activities designed to provide information relevant to programs administered by the former HEW Education Division. The primary offices within the Education Division were OE, the National Institute of Education (NIE), and the National Center for Education Statistics (NCES); these offices are now organizationally situated within ED. The information in Table A-1 pertains primarily to former Education Division offices because these are the offices for which comparable information was most readily available.

Information from HEW's planning office and from the office of the Inspector General is also included, along with data on activities of the U.S. General Accounting Office. Although data in the table were compiled in May 1980, there have not been major changes in the use of fiscal 1980 funds.

A broad, inclusive definition of program evaluation was used in compiling the data presented in Table A-1. It is adapted from the definition used by Robert Boruch in his proposal to OE to conduct a study of federally supported education evaluations at state and local levels (discussed in the second section of this report). Boruch's definition, which is consonant with that used by the Committee (see Chapter 2), includes the following activities under the heading of program evaluation: needs assessments, surveys, and other assessments conducted prior to program initiation or review; process, or formative, assessments intended to yield descriptive information on the composition, organization, or activities of a program; outcome, or summative, assessments intended to yield information on the relative benefits, costs, and other effects of a program; and cost/benefit analyses intended to draw together information on several types of program effects.

The category headings used in Table A-1 are as follows:

- "Federal office conducting evaluation activities" refers to offices implementing evaluations (for in-house efforts) and offices overseeing evaluation contracts (for contracted studies). The organizational headings do not necessarily reflect offices of equal bureaucratic rank.
- "Programs being evaluated" refers to the principal federal programs that are being studied.
- "Main evaluation objectives" reflects the priorities as described by federal evaluation managers in interviews for this project and in written statements prepared as part of the HEW evaluation planning process. The information in the table does not include federally supported evaluations conducted by local projects for purposes of either self-assessment or fulfillment of federal program requirements.
- "Federal funds used for evaluation in fiscal 1980" comprises estimates reported by evaluation managers and described in internal planning papers. Funds used in fiscal 1980 are indicated because that is the most recent year for which fairly precise estimates are available.

TABLE A-1 Federal Evaluation Activities in Support of Programs Administered by the HEW Education Division

Federal Office Conducting Evaluation Activities	Programs Being Evaluated	Main Evaluation Objectives	Federal Funds Used for Evaluation in Fiscal 1980 ($ thousands)	Special Features
Office of Education (OE)				
Office of Evaluation and Dissemination (OED)				
Elementary and secondary programs	Title I of the Elementary and Secondary Education Act (ESEA), emergency school aid, bilingual education, Title IV civil rights, national diffusion network, and impact aid.	Assessment of impact of program services on students (e.g., Title I, bilingual, and emergency school aid); description of program services, especially with regard to beneficiaries (e.g., Title I) and classroom activities (e.g., bilingual); provision of technical assistance for the improvement of state and local evaluations (e.g., Title I).	15,400	Impact studies play a decreasing role in overall efforts; increasing emphasis on support to state and local evaluation activities and on measurement of federal program implementation at the state and local levels.
Occupational, handicapped, and developmental programs	Vocational education, education of the handicapped, adult education, Indian education, libraries, educational technologies, and special projects (e.g., teacher centers and basic skills).	Response to congressionally mandated studies (e.g., vocational education, career education, and community education); information on impact of service delivery programs (e.g., libraries); exploratory evaluations, as described at entry for HEW Assistant Secretary for Planning and Evaluation (e.g., gifted and talented).	2,500	Significant portions of overall funding come from regular program accounts and from program administrative accounts, at the decision of program managers (e.g., Indian education and community education).
Postsecondary programs	Postsecondary grant and loan programs for students and discretionary grant programs for institutions (e.g., developing institutions and special services for disadvantaged students).	In student aid, (1) assessment of program impact as measured by reduction of financial barriers for students and (2) improvment in management of aid programs; in institutional aid programs, assessment of impact in terms of (1) increased financial stability and	1,700	

		program quality (e.g., developing institutions) and (2) increased enrollment rates of disadvantaged students (e.g., special services for disadvantaged students).		
Subtotal for OED			19,600	
Bureau of Education for the Handicapped (BEH)	Programs administered by the Bureau, especially state grants for education of handicapped children.	Fulfillment of mandated study and reporting objectives in Education of All Handicapped Children Act (P.L. 94-142), with special attention to the state approaches and practices that are most effective in the identification and delivery of services to handicapped children. Current projects include surveys of local student assessment practices and local services to handicapped children.	1,250	Evaluation activities based on multiyear evaluation plan developed and distributed following enactment of P.L. 94-142.
Bureau of Student Financial Assistance (BSFA)	Postsecondary grants to students (e.g., basic educational opportunity grants) and loans (e.g., guaranteed student loans).	Objectives similar to the student aid-related objectives of OED Postsecondary Programs Office, except less emphasis on program impact and more emphasis on management improvement; special attention to collection and analysis of data necessary for adjusting aid formulas to target intended students, while reducing instances of fraud and abuse of federal funds.	1,800	
Bureau of Occupational and Adult Education (BOAE)	Programs authorized by the Vocational Education Act and Adult Education Act.	Assessment of current needs for vocational education and technical assistance for state and local evaluations of federally supported activities.	500	Activities carried out primarily by National Center for Research in Vocational Education located at Ohio State University (total fiscal 1980 funding was $5.5 million).

TABLE A-1 (*continued*)

Federal Office Conducting Evaluation Activities	Programs Being Evaluated	Main Evaluation Objectives	Federal Funds Used for Evaluation in Fiscal 1980 ($ thousands)	Special Features
Follow Through	Follow Through, a discretionary grant program to aid disadvantaged children in the primary grades (K-3).	Current stress on improving the delivery of services to Follow Through grantees through the development of performance indicators for project implementation. Research, now separate from evaluation, concerned with development of new models and analysis of variables affecting implementation of models.	1,000 for evaluation and research combined (full 1,000 used to compute OE subtotal below).	Evaluation and research activities have been transferred from OED to program office, as a result of recommendation from exploratory evaluation conducted by Assistant Secretary for Planning and Evaluation.
Subtotal for OE			24,150	
National Institute of Education (NIE)				
Testing, assessment, and evaluation	Several small, urban education programs (e.g., push-excel and cities in schools) and general state and local instructional programs.	Improvement of local instructional practice, through (1) evaluations aimed at meeting needs identified by local instructional and administrative personnel (for small urban programs), (2) assistance to state and local educational personnel in improving quality of evaluations, and (3) research in evaluation methods.	4,000	Evaluation efforts not primarily oriented toward improvement in implementation of major federal education programs.
Mandated study of vocational education	Program administered by BOAE and, to a lesser extent, the Department of Labor's employment training programs for young people.	Assessment of policies (e.g., improvement in match between training activities and job opportunities) and mechanisms (e.g., open planning process) underlying the Vocational Education Act; studies not intended to evaluate current program impact on students.	1,000	Study mandated by Congress in the Education Amendments of 1976; comprehensive study plan submitted to Congress at beginning of study, followed by periodic reports. Overall effort patterned after congressionally mandated study of compensatory education 1975-78.

Dissemination and improvement of practice	NIE programs concerned with dissemination and improvement of practice, e.g., state capacity building for dissemination, RDU, ERIC, and the women and minorities program.	Assessment of four NIE programs to determine effectiveness of approaches to the transfer of educational research and development to educational practitioners.	625	Current NIE programs in area of knowledge transfer being used as vehicles for research into alternative methods of educational dissemination.
Subtotal for NIE			5,625	
National Center for Education Statistics (NCES)	In addition to regular educational surveys, special quasi-evaluation activities are as follows: • Evaluation of NCES technical assistance to users of NCES data. • Validity studies of ongoing surveys (Vocational Education Data System and Higher Education General Information Survey in FY 1980). • Fast Response Survey on policy issues, as requested by policy offices.	Assessment of NCES's own effectiveness in (1) making its data accessible and relevant to users (e.g., evaluation of NCES technical assistance) and (2) designing and implementing its surveys (e.g., validity studies); also, provision of needs-assessment-type data on a rapid basis (3-6 months) for use in policy making.	855	All NCES activities have potential evaluation-related uses, since they may provide information on need for changes or adjustments in federal programs. Total appropriation for NCES in fiscal 1980 was $10 million.
HEW Office of the Assistant Secretary for Planning and Evaluation (ASPE)				
Education Planning	Education Division programs with large fiscal outlays (e.g., ESEA Title I) or with especially promising educational approaches (e.g., Fund for the Improvement of Postsecondary Education).	Examination of national policy alternatives, often through reanalyses of data collected by other agencies (e.g., OE, NCES, Bureau of the Census); oversight of OE evaluation activities (e.g., ESEA Title I).	300	Occasional requests for OE to conduct specific evaluation studies.

TABLE A-1 (*continued*)

Federal Office Conducting Evaluation Activities	Programs Being Evaluated	Main Evaluation Objectives	Federal Funds Used for Evaluation in Fiscal 1980 ($ thousands)	Special Features
Evaluation	Representative sample of OE programs, broken down into "large formula grants," "large discretionary grants," and "small discretionary grants."	Identification of measurable program objectives and development of appropriate measures for use by program managers in assessing whether objectives are being met (e.g., Follow Through and bilingual education).	500	Exploratory evaluation approach being used for some studies conducted by OE.
Subtotal for ASPE			800	
HEW Office of the Inspector General (IG)	OE programs with large fiscal outlays (e.g., ESEA Title I, and postsecondary grant and loan programs) and programs with legislatively mandated audit requirements (e.g., vocational education state grants).	Auditing of activities at federal, state, and local levels to determine (1) adherence to principles of sound fiscal management and (2) compliance with pertinent legal requirements (e.g., Title I requirement that federal dollars must supplement and not supplant state and local spending on target children).	10,000 (200 staff-years, estimated at $50,000 per staff-year).	Planned HEW/IG activities for fiscal 1980 reportedly canceled in anticipation of new IG for Department of Education.

General Accounting Office (GAO)	OE programs or program components believed to have serious management problems (e.g., developing institutions, student aid eligibility for proprietary institutions, and defaults in the guaranteed student loan program) or unclear program objectives (e.g., Follow Through and bilingual education); also programs coming up for reauthorization in Congress.	Assessment of the federal administration of educational programs and evaluation of program impact on intended beneficiaries. Studies focused on generating program recommendations for Congress and for relevant federal agencies.	2,500 (50 staff-years, estimated at $50,000 per staff-year).	Programs selected for review according to requests from members of Congress or GAO staff.
Subtotal for all offices except IG and GAO			31,430	
TOTAL			43,930	

- "Special features" contains miscellaneous information relevant to evaluation activities of several of the offices indicated.

Among the categories of information presented in Table A-1, the category most vulnerable to change is the annual funding data. These amounts are subject to considerable fluctuation within any given year because of decisions to move funds into or out of accounts previously designated for evaluations and because of different interpretations as to whether a given project is an evaluation or a research activity. An example of the first type of fluctuation was the decision early in fiscal 1980 to transfer funds out of the "line item" appropriation for studies and evaluation of bilingual education programs in order to fund a bilingual television project. A total of $700,000 in OE funds for federal program administration was designated to be used to replace the transferred sum, but because of high expenses associated with implementing the new ED, the bilingual evaluation funds were not replaced. An example of the second type of fluctuation can be seen in NIE's reports of its own program expenditures. Because of an administrative decision to allot the maximum amount of NIE's funding to research purposes, the Institute intentionally labels very few of its projects as evaluations, even though many have characteristics that conform to the definition presented above.

The aspect of the table most likely to provoke questions from readers is the inclusion of federally conducted audits of federal, state, and local implementation of federal programs. Audits are generally not considered to be evaluative in nature, especially since they usually focus only on the fiscal operations of individual federally funded projects. In recent years, however, federal audits have become increasingly concerned with nonfiscal matters, particularly state and local compliance with legislated objectives and procedures. The adoption of this auditing focus has resulted, in some instances, in a blurring of the distinction between audits and evaluations, particularly given the establishment of specified national priorities for federal education audits. For example, the fiscal 1980 work plan for the HEW Office of the Inspector General identified three priorities for audits of state and local administration of Title I of the Elementary and Secondary Education Act (ESEA): (1) compliance with the

Title I statutory requirement for annual maintenance of local fiscal effort per pupil; (2) implementation of Title I state requirements for monitoring and enforcement plans; and (3) operations of the centralized Migrant Student Record Transfer Service funded under Title I. With the establishment of explicit compliance-oriented auditing objectives such as these, federally conducted audits have acquired a distinct resemblance to program evaluations.

FEDERALLY SUPPORTED EVALUATIONS CONDUCTED BY STATE AND LOCAL AGENCIES

Virtually all federal education aid programs require institutional grantees to conduct evaluations of their own performance. The specific language of the legislative requirements varies among programs, depending on the overall objectives of the program and also on the evaluation methodologies considered by federal administrators to be best suited to the particular program. For programs with a large state administrative role, such as ESEA Title I and the state grant program under the Vocational Education Act, states are also required either (1) to collect local evaluation data and provide summaries of these data to ED on a regular basis or (2) to carry out their own state-managed evaluation efforts.

In recent years congressional mandates and Education Division program managers have identified state and local evaluaton priorities with increasing specificity, but the offices of the former Education Division do not at present collect regular data on the implementation of state and local evaluation requirements. Therefore, it is not possible to determine what portion of ED program grant funds are used by grantees for self-evaluation purposes nor is it possible to determine exactly how those funds are used. It is apparent, however, that significant amounts of federal funds are used to provide assistance to state and local agencies in improving the quality of their evaluations.

Evaluations conducted by state and local agencies are generally funded using program grant funds. At the state level, evaluation activities are supported using state administrative funding provided by the pertinent federal program. ESEA Title I, for example, provides each state educational agency with 1.5 percent of the state's total

Title I funding for purposes of state administrative activities, including Title I program evaluation. In school year 1979-80, amounts available for Title I state administrative activities, including evaluation, ranged from $4.5 million in New York to $225,000 in the 14 states with the lowest Title I enrollments. Other federal education programs also provide administrative funding to state education agencies.

At the local level, evaluation activities must be supported out of each school district's federal grant funds. The district's grant application usually describes the evaluation activities planned by the district and indicates how much of its grant is proposed to be used for evaluation purposes. That proposal is not generally binding on the district, however, once the federal grant is received. (For more detail on the funding and management of local evaluation activities, see Appendix C.) Examples of the types of state and local evaluation activities carried out under three federal education programs are described below.

ESEA Title I

As a result of a requirement contained in the Education Amendments of 1974 (P.L. 93-380), OE developed a set of local evaluation models for use by Title I grantees. The models, as specified in federal regulations (45 CFR 116.7 and 116a.50-57 published in the Federal Register on October 12, 1979), provide methods for measuring student achievement gains in reading, mathematics, and language arts. ED (and formerly OE) also provides technical assistance (at a cost of $11 million in fiscal 1980) to state education agencies on methods for assisting local districts in the use of the models. Despite extensive efforts by OE since 1974 in designing and implementing the models, Congress has expressed concern in committee reports for the Education Amendments of 1978 (P.L. 95-561) that the Title I evaluation models do not yield data that can be used by local Title I administrators as a basis for improving Title I projects (U.S. Congress 1978a:51, and U.S. Congress 1978b:29-30). Findings in support of this view have also been presented by David (1980) and Orland (1980), but they are contradicted by statements of the ED evaluation office.

ESEA Title VII

The Education Amendments of 1974 also mandated that evaluation models be developed for use by local districts receiving funds under ESEA Title VII, the Bilingual Education Act. The Education Division did not immediately implement that mandate, however, and it was reiterated in the Education Amendments of 1978. The Senate committee report on the 1978 amendments expressed hope "that these guidelines will provide scientifically valid information as well as describe the unique features of each project in order that local level projects can be validly compared" (U.S. Congress 1978b:69). The ED evaluation office is currently overseeing a project intended to yield evaluation models for use by Title VII grantees. In early descriptions of the project, the evaluation office has stated that the models are to be designed on the basis of existing approaches (including the current Title I evaluation models) and are not to reflect any new or "basic research."

As in Title I, the Title VII program also funds technical assistance providers who are expected to assist local Title VII grantees in improving the quality of their self-evaluations. Until the evaluation models are ready, however, grantees and assistance providers have relatively little guidance on which to base local evaluation efforts, except for criteria in the Title VII final regulations requiring attention to "data collection instruments and methods," "data analysis procedures," "time schedules," and the like (45 CFR 123a.30(e) published in the Federal Register on April 4, 1980).

Vocational Education Act

The Education Amendments of 1976 (P.L. 94-482) established a comparable set of requirements for the Vocational Education Act. States are required to use "statistically valid sampling techniques" to measure "the extent to which program completers and leavers (i) find employment in occupations related to their training, and (ii) are considered by their employers to be well-trained and prepared for employment" (Section 112 (b)(1)(B) of the Vocational Education Act). In addition, the legislatively mandated "national center for research in vocational education" is to "work with states, local educational agencies, and other public agencies in

developing methods of evaluating programs, including the follow-up studies of program completers and leavers required by Section 112, so that these agencies can offer job training programs which are more closely related to the types of jobs available in their communities, regions, and states..." (Section 171(a)(2) of the Act). The national center at Ohio State University has prepared materials relevant to their technical assistance role; a recent list of their activities includes three projects aimed at implementing this mandate: "Evaluation Services for Education Agencies," "Evaluation Handbooks," and "Inreasing the Credibility of Vocational Education Evaluations" (listed in Gordon et al. 1979:62-63, 153). The NIE mandated study of vocational education is currently examining the performance of states in implementing their evaluation requirements.

Studies of State and Local Evaluation Activities

Despite these extensive statutory mandates for state and local evaluations, the only effort up to now to review federally supported state and local evaluations across federal programs has been the recent study by Boruch and Cordray (1980). That study provides information on those state and local evaluation activities aimed at producing data relevant to federal categorical programs. There are also three studies (one of which is under way now) that provide information on state and local evaluation activities supported from a variety of sources, federal and nonfederal.

Survey of large school district evaluation units. The Center for the Study of Evaluation at the University of California at Los Angeles has examined the organization of local school district offices of evaluation. This survey acquired data on the size, staffing, and organizational structure of evaluation offices in school districts with enrollments over 10,000 (Lyon et al. 1978).

Survey of educational researchers and research organizations. Under contract with NIE, the Bureau of Social Science Research in 1976-78 surveyed nonfederal organizations conducting research, development, dissemination, and evaluation activities in education. Information was obtained on funding, organizational characteristics, and activities of 2,434 such entities (Frankel et al. 1979) (see Appendix B).

Study of how school districts use information from testing and evaluation. Currently under way through an NIE contract to the Huron Institute in Cambridge, Massachusetts, this study is intended to develop strategies for helping school districts make better use of evaluation and test information. Initial reports from the study were made available in the fall of 1980; the final report is to be issued in the fall of 1981.

Although each of these studies sheds light on state and local evaluation activities in education, none provides a comprehensive description of state and local evaluations undertaken to assess the operations of federal programs.

EVOLUTION OF THE FEDERAL ROLE IN THE EVALUATION OF EDUCATION PROGRAMS

Evaluation requirements are a relatively recent addition to federal education programs. The first mandatory evaluations for an OE program were those carried out by local districts implementing ESEA Title I projects. In 1965 Senator Robert Kennedy introduced language into the draft version of Title I requiring that "effective procedures, including provision for appropriate objective measurements of educational achievement, will be adopted for evaluating at least annually the effectiveness of the programs in meeting the special educational needs of educationally deprived children" (Section 205 (a)(5), P.L. 89-10). Over the next several years local evaluation requirements were added to other OE program authorities, and by 1970 several OE bureaus had designated evaluation coordinators whose role was to oversee local evaluation efforts and occasionally to conduct small studies at the national level, usually relying on OE general administrative funds (under the "Salaries and Expenses" account in the annual appropriation) for financial support of any contracted projects.

The fiscal 1970 appropriation for OE contained for the first time, however, a $9.5 million line item for OE evaluation and planning activities. Also in that year John W. Evans was named to head the first OE-wide evaluation office to oversee the expenditure of those funds. To administer a centralized evaluation and planning function, Evans assembled an evaluation staff, composed largely of the evaluation coordinators who had

been working at the bureau level, and also consolidated the various other pockets of federal funds that had until then been sources of bureau-level evaluation support. After that beginning, the activities of the evaluation office grew steadily for the next several years.

With the legislative creation of NIE in 1972, the organizational structure for OE studies of eduation programs was altered somewhat. With a few exceptions, those OE functions that were primarily research oriented were transferred to the new agency. Notable exceptions were the research activities carried out as an adjunct to the OE program for the education of handicapped children.[1] The director of the program argued that the research activities for the education of the handicapped were so closely related to state and local program support activities that handicapped research should not be moved to NIE. The OE handicapped office was successful in this argument and thus paved the way for the 1975 legislative directive in the Education of All Handicapped Children Act (P.L. 94-142) that the major national evaluation activities required in the Act were to be administered by the OE Bureau of Education of the Handicapped (BEH) and not in the central OE evaluation office.

The move towards decentralization of evaluation functions was underscored by language specifying that the new national center for research in vocational education was to be lodged in OE. This action had implications for OE evaluations because the research center was given specific responsibilities for developing evaluation methods and assisting state and local agencies in implementing program evaluations. In the trend towards decentralization of evaluation activities, it was equally important that Congress specified in the vocational education statute (Section 160 (a)(1)) that "the administration of all the programs administered by this Act" was to be the responsibility of the Bureau of Occupational and Adult Education (BOAE). Thus, the management of the national vocational research center and its mandated evaluation activities were explicitly assigned to the OE operating bureau, not to the central evaluation office or to NIE.

The most recent step in this trend has been the shift of responsibility for evaluation of the Follow Through program. As a result of a short-term "exploratory" evaluation of the program, the OE Commissioner in 1979 decided to move Follow Through evaluation activities from

the central evaluation office to the Follow Through program office. This move was sought by Follow Through program staff for the stated purpose of making the Follow Through studies more relevant to program operations. Undoubtedly, another factor was displeasure of the staff with a recent large evaluation of the impact of Follow Through services on student development, reflecting a frequent pattern of program office/evaluation office tension (noted in the final section of this paper).

In addition to the handicapped, vocational, and Follow Through evaluation activities, OE's evaluation function had been decentralized in several other ways, even before the new ED was created. The evaluation office, for example, has invited the participation of program managers in all major decisions affecting evaluations in their respective program areas. The evaluation planning process, described in the following section, relies heavily on the judgments and recommendations of program managers. The importance of this consultation is in some senses highlighted by the increase in statutory set-asides of annual program appropriations for national evaluations. The Emergency School Aid Act of 1972 (P.L. 92-318) specified a set-aside of up to 1 percent of annual appropriations for national program evaluations. Two years later, the 1974 reauthorization of ESEA Title I authorized up to one-half of 1 percent of annual Title I appropriations for program evaluation and studies. In a slightly different pattern, the 1974 reauthorization of ESEA Title VII established a new "Part C - Supportive Services and Activities" to be administered by the HEW Assistant Secretary for Education. The 1978 amendments to Part C authorized studies that are clearly evaluative in nature, including studies of Title VII effects on students with language proficiencies other than English and of methods for identifying students to be served by Title VII projects. Because the statute assigned administrative authority for Part C to the HEW Assistant Secretary for Education, the OE evaluation office was only one of four offices that has in the past several years reviewed plans for bilingual activities; the other offices have been the OE Office of Bilingual Education, NIE (since it is given specific statutory responsibilities under Part C), and NCES (since it conducts statistical studies supporting Title VII). Under the new Department of Education, the Part C coordinating function is being carried out by the Office of Bilingual Education and Minority Language Affairs.

EVALUATION PLANNING

One of the most difficult problems affecting program evaluation efforts in the Education Division and in ED has been determining the best way to identify program evaluation needs.[2] The problem is largely one of organization. Program managers need to be consulted regarding any studies to be done in their respective program areas, and in fact the ED evaluation office has been consistently careful to ask for the suggestions of program managers. Program managers and evaluation managers often disagree, however, with regard to evaluation priorities for a given program. Program managers are more likely to ask for evaluation studies that will help them improve existing management tools or will enlarge their information about their program operations; evaluators tend to be more concerned with whether or not a program is effectively meeting a longer-range objective, such as the improvement of academic achievement (or college enrollment rates or English proficiency) for a defined group of students. Program managers may not place a high priority on evaluations of program effectiveness because they believe that first-order questions (e.g., "Are the intended children receiving the intended program service?") should be answered first or because they fear the consequences of unfavorable answers to program effectiveness questions. In addition to this disagreement over the purposes of evaluations, another organizational problem is that senior-level program managers often simply are not willing to take the time to consider evaluation priorities at the time that decisions must be made.

The OE, now ED, evaluation office has addressed this need for program consultation by seeking formal suggestions for evaluations from program managers once a year. Through 1978 the strategy was to issue an annual request for project recommendations from program managers and then to use those recommendations as one factor in developing a list of projects to be undertaken in the following year. This list was then submitted to the HEW Assistant Secretary for Planning and Evaluation (ASPE) for final approval. The amount of scrutiny by ASPE varied from year to year; generally only the central evaluation unit's plans were subjected to critical review even though other units, such as NIE and NCES, also submitted their plans.

In 1979 a new procedure was initiated that imposed greater top-level control over evaluation planning and was intended to make plans more responsive to concerns of Congress and senior HEW and ED policy makers. The main foci of this attention were the proposals of the OE, and then ED, central evaluation office, but the senior-level review group convened for the purpose also reviewed fiscal 1979 evaluation plans prepared by BEH, BOAE, and the Bureau of Student Financial Assistance (BSFA). The plans of the central evaluation office, which received by far the major portion of the group's time and concern, were criticized and modified by the group primarily with regard to the proposed timing of studies and their expected cost; in a few instances plans for impact studies were delayed by the group and program needs assessment projects were suggested to precede impact studies. The group's primary objective with regard to timing was that new evaluation studies should be scheduled to provide useful program data in time to make substantive contributions to legislative debates on program reauthorization. Cost considerations entered the decisions to reduce the scope of tasks proposed in certain studies and to eliminate some tasks from other studies. Preliminary studies of program need were recommended in instances in which policy questions existed about the national need for the type of services to be provided by the program under review. The new review procedure was also used for 1980. The resulting evaluation plan marked the first time that a comprehensive OE-wide plan had been assembled.

An example of the new review procedure in action was the group's decision on the proposal of the evaluation office to examine the effectiveness of the developing institutions program, Title III of the Higher Education Act (P.L. 92-318, amended by P.L. 94-482). In that action the group decided that it was premature to consider the effectiveness of the program in improving the financial and educational viability of the institutions being funded. The group decided that a necessary first step was to identify a set of reliable indicators to apply to the financial status of a college or university in order to determine the financial strength or weakness of the institution under review. It was also determined that an "exploratory evaluation" of the developing institutions program should be conducted.[3] The purpose of the exploratory study would be to identify practical, usable measures of successful

project implementation. If such measures could be identified, it would then be reasonable to go forward with a larger-scale study, which would--among other things--actually measure whether or not the developing institutions program was being fully implemented by institutions receiving awards under the program.

Under ED Secretary Shirley Hufstedler, the organizational setting for program evaluation reflected the increased emphasis on linkages between evaluation and program improvement. The central evaluation office in ED reported organizationally to the Deputy Assistant Secretary for Evaluation and Program Management, who in turn reported to the Assistant Secretary for Management. The Program Evaluation Office was organizationally coequal to the Management Evaluation Office, which was assigned responsibility for management evaluation, management quality assurance, program assessment, and organizational development. In his statement before the Senate Human Resources Committee prior to confirmation, John Gabusi, Secretary Hufstedler's Assistant Secretary for Management, expressed his intent to improve the use and usefulness of ED evaluations for purposes of management improvement in ED programs, decisions on program budgets, and fulfilling information needs of Congress prior to legislative reviews.

Gabusi's statements and the structure within which the program evaluation function was organizationally housed at that time reflect to a considerable extent the priorities expressed in Circular No. A-117 issued by the U.S. Office of Management and Budget in March 1979. Entitled "Management Improvement and the Use of Evaluation in the Executive Branch," this directive to federal agencies construes program evaluation as a component of federal management improvement. As stated in the circular, "agency evaluation systems . . . should focus on program operations and results. They should include procedures to assure that evaluation efforts result in specific management improvements that can be validated" (page 2). The organizational structure under Secretary Hufstedler reflected these priorities and may have indicated the direction of upcoming ED evaluation activity. No information is available at this writing, however, on the program evaluation plans of Terrel Bell, Hufstedler's successor as Secretary of Education.

The evaluation of federal education programs has undergone considerable change in the 10 years in which it has been a major federal activity. These changes have

included increases in legislative priority on evaluations at federal, state, and local levels. Organizationally, we have seen the federal evaluation function centralized into a single agency-wide unit and then gradually decentralized to some degree. The creation of the Education Department may be quickening the pace of change that characterizes this process. Given these circumstances, it is essential that the direction and character of federal education evaluations be informed by expert, dispassionate analysis of possible methods for increasing the utility of federal evaluations as a tool for improving education.

NOTES

1 A second important exception was the policy research activities carried out by the Education Policy Research Centers. At the recommendation of Evans in 1972, those ceners (three in number at that time) were moved from the OE evaluation office to the newly created Office of the Assistant Secretary for Education in order to support that office's activities in education policy development.

2 A similarly difficult issue has been the utilization of evaluation findings. This issue is addressed in Boruch and Cordray (1980) and in the report of the Committee.

3 Such studies were also undertaken in a number of other program areas at the instigation of Joseph Wholey, ASPE Deputy Assistant Secretary, who had developed the notion of exploring the "evaluability" of a program before full evaluations were done.

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APPENDIX

B

Performers of Federally Funded Evaluation Studies

Laure M. Sharp

INTRODUCTION AND DATA BASE

The evaluation of federally funded social initiatives in education--as in health services, crime control, or housing programs--is seldom carried out by federal agencies. The bulk of evaluation performers are private research firms, academic bureaus, and state and local agencies, which receive federal funds to conduct evaluations commissioned by congressional mandate or by executive policy makers or to carry out evaluations on their own initiative with federal support. Although much has been written on evaluation methodology and quality, on one hand, and on the uses and abuses of the grant and contract system under which federal funds are channeled to outside performers, on the other, there is no single useful data base that provides figures on federal funds spent in a given fiscal year on evaluation activities, the portion of such funds allocated to outside contractors or grantees, and the identification of contract and grant recipients.

Evaluations in the field of education represent a large share of all federally funded evaluation activities, probably on the order of one-fifth or one-fourth of those activities.[1] More specific information exists with respect to the performers of

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The author is senior research associate at the Bureau of Social Science Research. She has specialized in survey research in manpower and education.

educational evaluations than for all other evaluations funded by the federal government; even in education, however, information is not nearly as extensive and reliable as one would need for a comprehensive assessment. The procedure of piecing together relevant information from various sources is subject to a high degree of imprecision for several reasons:

- There is no commonly accepted definition of evaluation activity. In particular, the boundaries between evaluation and research are far from clear-cut, as discussed by Reisner in Appendix A and by Abramson (1978) in his work on federal funding of social reserch and related activities. Evaluation performers themselves are even more inconsistent with respect to these boundaries.
- The data that are available seldom refer to the identical time span. Yet the volume and nature of federally funded evaluation activities in education have varied considerably over the time period (1974-79) considered in this paper.
- While evaluation studies commissioned by federal agencies have been increasingly funded in the form of contracts awarded through the competitive procurement process, work in the evaluation area is also awarded in the form of grants and "sole-source" awards. In addition, existing contracts and grants are often extended and modified, frequently with the addition of new funds. Information about these types of funding activities is difficult to locate.
- The prevailing revenue-sharing model under which large funds are allocated to state and local jurisdictions on a discretionary basis makes it almost impossible to estimate the level of evaluation activities carried out by these jurisdictions. In particular, systematic documentation is lacking about the extent to which such activities are performed by staffs of state and local education agencies or under grant and contract arrangements by outside organizations. While there is some discussion in this paper of the evaluation activities of state and local education agencies, data presented for those sectors should be viewed as especially rough estimates.
- While many contracts or grants may be awarded for the exclusive purpose of conducting an evaluation, there are probably many more instances where evaluation is merely one component of a project. This is especially true of social experiments and demonstration programs.

Most of the data in this paper were obtained through a survey of performers of research and research-related activities in education, the American registry of research and related organizations in education (ARROE). The ARROE project was conducted from 1976 to 1979 by the Bureau of Social Science Research under contract to the National Institute of Education. To create a listing of potential performing organizations, a variety of sources was used, including rosters of state departments of education, intermediate education agencies, local school systems, federal grantees and contractors, and authors of articles in 82 pertinent journals. The ARROE project initially identified more than 6,300 organizations that might meet the criteria for inclusion in the survey, and a questionnaire was mailed to each organization. Organizations that had been active performers during their last completed fiscal year and were distinct organizational entities were considered eligible for the survey and were asked to complete the entire questionnaire. Organizations that failed to respond were contacted by telephone, and, if eligible, were asked a number of key questions. Of the 6,346 organizations on the original mailing list, 81 percent were contacted and their eligibility established. Of the 5,208 organizations with whom contact was made, data from just about half (2,434) were included in the data analysis; most of the others were ineligible, frequently because they had not carried out educational RDD&E during their most recent fiscal year. (The derivation of the ARROE data base is sketched out in Table B-1.) Slightly less than half of the reporting units had returned the detailed mail questionnaires, while slightly more than half of the units were asked the abbreviated set of questions in a telephone interview. Thus, the ARROE survey yielded two data sets: a basic set for all organizations for whom some data was obtained (N = 2,434) and a more detailed set (N = 1,071) limited to those organizations that completed mail questionnaires.[2] The 2,434 performing organizations covered by the survey were located in 1,530 separate institutions (see Table B-2).[3]

While evaluation was one of the activity areas covered by the ARROE survey, it was not its primary focus. The ARROE staff--in consultation with an advisory committee on which the principal types of performers were represented--came to the conclusion that in fact most organizations that perform research and research-related activities would find it difficult to differentiate

TABLE B-1 The ARROE Data Base

	Organizations in Public Education Agencies	Organizations in Colleges or Universities	Other Organizations[a]	Total
Mail out (N)	1,300	3,655	1,391	6,346
Percentage of returned usable mail questionnaires	35	22	22	24
Percent eligible for ARROE	23	16	14	17
Percent not eligible for ARROE	12	6	8	7
Percentage with whom telephone interviews were completed	50	35	41	39
Percent eligible for ARROE	30	19	20	21
Percent not eligible for ARROE	20	16	21	18
Percentage eliminated after initial contact[b]	3	23	16	18
Percentage of no contact made[c]	12	20	21	19

[a]Includes private profit organizations and organizations in not-for-profit research firms, hospitals, museums, etc.
[b]Organization defunct; organization covered by other reporting unit.
[c]Includes refusals; not reached; in process at time of cutoff.

TABLE B-2 Organizations and Institutions Active in Educational RDD&E, 1976-77, and Included in ARROE

	Number of Separate Organizations Identified	Number of Institutions in Which These Organizations Were Located	Types of Institutions
Public education agencies	688	631	37 State education agencies 193 Intermediate service agencies 401 Local education agencies
Academic	1,268	423	Public and private junior colleges, 4-year colleges, universities, and their divisions; educational R&D centers
All others	478	476	Private nonprofit and for-profit organizations and noninstructional governmental agencies; independent education R&D laboratories

between types of functions in funding, expenditures, and staffing. This was believed to be the case especially with respect to basic versus applied research, but also for research versus evaluation and policy studies.

The definition of evaluation studies also posed a problem. The ARROE staff and their advisors saw the need for a fairly restrictive definition, given the propensity of some respondents, especially those in public education agencies, to include under the heading of evaluation the compilation and reporting of periodic or routine statistics and information. For this reason, ARROE labelled the relevant category "evaluation and policy studies," which was defined as: "systematic inquiries specifically addressed to policymakers and intended to

inform their major policy decicions. Subsumed are assessments and effects of RDD&E-based programs, determination of the feasibility of new programs and projects, and studies focusing on needs, goals, and priorities of action regarding ongoing or contemplated activities." Thus, ARROE's definition of evaluation activities differs to some extent from those used by other investigators and especially by the Committee. With respect to the latter, ARROE's definition is both more restrictive, because it specifies policy makers as the audience, and broader, because it specifically includes policy studies.

Using the ARROE definition, several questions about evaluation activities were included in the mail questionnaire. Respondents were asked to estimate what percentage of their education research, development, dissemination, and evaluation (RDD&E) expenditures were used primarily for evaluation and policy studies and how many full-time and part-time professionals spent the greatest percentage of their working hours performing evaluation and policy studies. "Project and program evaluation" was also listed as one of more than 50 problem areas among which respondents could select those to which their organizational activities were primarily directed.

The discussion on the following pages is based on these data and on related analyses of the ARROE data-base (Frankel 1979, Frankel et al. 1979, Lehming 1979, Sharp 1979, Sharp and Frankel 1979). I believe that this discussion is helpful in providing a rough picture of the performer universe and especially of those organizations that are most active in what is sometimes called the evaluation industry. It would be foolhardy to claim a high degree of precision for the numbers presented here--given such problems as missing data, reluctance on part of some performers to respond in detail to questions on financial affairs and on staffing, and possible respondent misinterpretation or distortion. Nevertheless, there is enough consistency within the data set and enough congruence between the ARROE-based findings and those of other investigators to provide reasonable confidence about the general trends portrayed by the data.

ESTIMATE OF FUNDS EXPENDED BY EVALUATION PERFORMERS

On the basis of the ARROE data, I estimate that about $100 million in federal funds were spent for education evaluation in 1977 by extramural performers. These estimates are based on three calculations. First, data from 80 percent of the 2,434 eligible ARROE respondents showed aggregate total expenditures for all education research and research-related activities of $735 million. Adjusting this number for the 20-percent nonresponse, I estimate total RDD&E expenditures by educational research performers in 1977 at $900 million. Second, data from a subset of respondents (864 organizations that completed all relevant items on the detailed mail questionnaire and reported actual expenditures of $355 million) showed that approximately 22 percent of all RDD&E expenditures were devoted to evaluation and policy studies (see Table B-3). Applying this proportion to the total ARROE population, I estimate that total expenditures for evaluation and policy studies in education were approximately $200 million.[4] Third, about half of all reported RDD&E expenditures in 1977 came from federal sources. This proportion may be a conservative estimate for evaluation given the characteristics of the principal performers (which is discussed below).

Thus, I estimate that in 1977, extramural performers spent at least $100 million for federally funded evaluation and policy studies. This figure is considerably higher than one would derive for 1979 using Reisner's data in Appendix A, and it is also much higher than that derived from an available inventory of competitive contracts awarded by the education agencies in HEW for fiscal 1977 (Kooi et al. 1978); see Table B-4. Nevertheless I am reasonably confident that the figure may be a valid order-of-magnitude estimate for 1977 for several reasons: more funding was available in 1977 than in 1979 (see Table B-4); Reisner's data do not include expenditures by public education agencies (SEAs and LEAs), which accounted for a sizable proportion of all funds expended; Kooi's data do not reflect grants and sole-source awards, nor do they include continuing work based on contracts and grants awarded in earlier years, including supplements made through contract modifications, while the ARROE study did include funds for continuations and supplements; the ARROE study also included performers who received funds from agencies

TABLE B-3 Functional Distribution of Evaluation Expenditures by Sector

Sector	$ Thousands	Research	Development	Dissemination	Evaluation and Policy Studies	Other	Number of Organizations	Percent
Private								
Profit	31,208	9.3	25.2	10.5	54.8	0.2	22	100
All other[a]	95,277	30.5	22.6	22.7	20.9	3.3	131	100
Total	126,485	25.3	23.2	19.7	29.3	2.6	153	100
Academic	147,086	41.6	24.4	16.4	11.5	6.2	474	100
Public								
Small LEAs	11,433	19.8	29.3	7.2	33.9	9.9	109	100
Large LEAs	20,464	12.3	25.6	7.6	48.6	5.8	34	100
ISAs	12,896	12.1	25.9	31.6	29.2	1.2	55	100
SEAs	35,344	14.2	42.4	15.4	23.5	4.9	36	100
Total	80,137	14.1	32.6	16.1	31.9	5.3	234	100
TOTAL	354,490[b]	29.5	25.8	17.7	22.4	4.7	864	100

[a]Includes primarily private nonprofit organizations, including independent nonprofit R&D organizations and public organizations (e.g., state and local agencies outside the field of education, such as hospitals or health agencies), as well as those organizations whose profit or nonprofit status could not be determined because they did not supply the information.

[b]Includes $782,000 not identified by sector.

SOURCE: ARROE mail questionnaire respondents only.

TABLE B-4 Competitive Procurements in 1977 and 1979 for Evaluation Studies by Sector

	1977[a]	1979[b]
Public agencies	--	45,000
Academic institutions	199,000	38,238+
Private (profit or nonprofit)	5,326,654	2,664,613
TOTAL	$5,525,654	$2,747,851

[a]Data from Kooi *et al.* (1978).
[b]Preliminary data from Kooi *et al.* (In press), made available to the author.

other than HEW (for example, from DOL or NIH) for work that could be classified as education RDD&E; and classification differences--in particular the inclusion of policy studies--may have inflated the evaluation estimates for ARROE.

SELECTED CHARACTERISTICS OF PERFORMING ORGANIZATIONS

Who were the performers of evaluation work in 1977 and how were federal funds for evaluation distributed among various sectors of the performer community? For analytic purposes, ARROE classified the performer community into three major segments: the public education sector, which included state education agencies (SEAs), intermediate service agencies (ISAs), and local education agencies whose enrollment was 10,000 or more, which in turn were subdivided into large LEAs (with enrollments of 50,000 or more) and small LEAs (with enrollments of 10,000-49,000); the academic sector, which included public and private two-year and four-year colleges, universities, and their subdivisions, such as R&D centers, specialized institutes, and survey units; and a residual sector, which was largely composed of profit and not-for-profit research and development organizations and educational laboratories, but also included hospitals, publishers, foundations, associations, and noneducational agencies of state and local governments, such as health and manpower agencies.

As shown in Table B-5, academic organizations represent the largest single group of performers of educational research and related activities, followed by

TABLE B-5 Distribution by Sector of All RDD&E Performers and of Evaluation Performers

Sector	(N)	All RDD&E $ Thousands	All RDD&E Percent	Evaluation $ Thousands	Evaluation Percent
Private					
Profit	(22)	31,208	8.8	17,094	21.5
Other	(131)	95,277	27.1	20,151	25.3
Total	(153)	126,485	35.9	37,245	46.8
Academic	(474)	147,086	41.4	16,911	21.2
Public					
LEA -small	(109)	11,433	3.2	3,870	4.8
LEA--large	(34)	20,464	5.8	9,953	12.5
ISA	(55)	12,896	3.6	3,778	4.7
SEA	(36)	35,344	9.8	7,373	9.9
Total	(234)	80,137	22.4	25,474	32.0
TOTAL	(864)	354,490[a]	100.0	79,645[b]	100.0

[a]Includes $782,000 not identified by sector.
[b]Includes $15,000 not identified by sector.
SOURCE: ARROE mail respondents only.

those in the private sector. Public education agencies accounted for less than one-fourth of all RDD&E expenditures.[5] With respect to evaluation, however, the picture is very different. Organizations in the private sector were in first place, followed by public education agencies, and academic performers had the smallest share. Furthermore, as shown in Tables B-6 and B-7, only in two types of organizations--private for-profit and local school systems--is there a concentration of organizations that spent more than $100,000 on evaluation in 1977 or devoted most of their resources (50 percent or more) to evaluation activities. The data clearly suggest that evaluation is a marginal activity for most academic performers, while it plays a major role in sustaining most for-profit organizations. However, given the actual numbers of performers involved, one should not conclude that most large evaluation dollars were spent by private for-profit organizations in 1977: 5 for-profit organizations spent in excess of $500,000 for evaluation compared with 12 not-for-profit

TABLE B-6 Level of Expenditures for Evaluation by Reporting Organizations (percent of organizations)

Level of Expenditure (dollars)	Type of Organization							
		Private			Public			
	All Organizations	Profit	All Others	Academic	SEA	ISA	LEA--Small	LEA--Large
0	30.6	17.4	29.0	40.2	10.8	23.7	11.7	5.9
$1-24,999	31.6	8.7	27.5	32.2	18.9	45.8	41.4	11.8
$25,000-99,999	21.0	21.7	15.3	18.2	27.0	20.4	37.8	20.6
$100,000-500,000	13.7	30.4	21.4	8.6	35.1	8.5	[illegible].0	47.1
Over $500,000	3.1	21.7	6.8	0.8	8.1	1.7	--	14.7
TOTAL (percent)	100.0	99.9	100.0	100.0	99.9	100.1	99.9	100.1
Number of cases	873	23	131	478	37	59	111	34

SOURCE: ARROE mail respondents only.

TABLE B-7 Percentage of Organizations' Total Expenditures Devoted to Evaluation

Sector	0	1-24	25-50	50+
Private				
For profit	19.2	15.4	26.9	38.5
All other	23.7	43.9	18.0	14.4
Academic	34.9	41.4	11.6	12.0
Public				
SEA	14.0	51.2	25.6	9.3
ISA	18.6	52.5	15.3	13.6
LEA--small	8.8	24.6	26.3	40.4
LEA--large	5.4	13.5	37.8	43.2

SOURCE: ARROE mail respondents only.

organizations and 4 academic organizations that spent that amount.

There are sharp differences among organizations in the various sectors of the performing universe. The balance of this section examines separately some salient features of evaluation performers in each of the three sectors.

For-Profit and Not-for-Profit Organizations in the Private Sector[6]

What is sometimes referred to as the evaluation industry is a group of organizations--some profit, some not-for-profit, some large, others quite modest--that are at present the most frequent performers of federally funded evaluations in the field of education. With the emergence and the predominance of the competitive procurement system and the funding of evaluations under contracts rather than grants, organizations of this type are apparently best able to mount the prodigious proposal writing efforts required for participation in the system and to muster and manage the resources necessary to carry out large-scale evaluation projects, often under severe time constraints.

Obviously, the ARROE data collection effort, since it was not targeted to performers of federally funded evaluation but sought instead to capture the universe of organizations that contributed to research, development, and evaluation in education in 1977, failed to isolate

the full set of organizations that are of interest for an assessment of federally funded evaluation performers. Nevertheless, some of the findings are instructive: 211 of the 478 organizations in the residual sector (i.e., affiliated neither with academic institutions nor with public education agencies) were classified as R&D organizations and thus constitute the universe of organizations potentially involved in the "evaluation industry" (see Table B-8). Most of these 211 organizations spent less than $1 million on all research and research-related activities in 1977, regardless of source of funding. The 77 organizations that spent $1 million or more in 1977 include the federally funded educational laboratories (a group of not-for-profit institutions started with federal funding but now partly dependent on grant and contract work) and a number of not-for-profit groups primarily oriented to the field of education or educational administration. The ARROE data are incomplete (about one-third of the respondents did not wish to disclose the information or have their names associated with the information if they did disclose it) but no more than 15 organizations were identified that are members of the "industry" as popularly conceived (System Development Corporation, Abt Associates, American Institutes for Research, Educational Testing Service (ETS), etc.). Only three such organizations are among the 10 private-sector organizations that reported expenditures of more than $5 million for all education RDD&E; the other 7 organizations were educational laboratories, not-for-profit education centers, and hospitals, presumably engaged in research centered on the education of medical personnel.[7]

More than other organizations, those in the private sector and especially the major performers depend heavily on federal funding for their activities. According to the ARROE study, 62 percent of the funding for the private sector came from federal sources compared with 48 percent for the academic sector. Academic institutions rely to a greater extent on state and local government funding: 19 percent of education RDD&E work in the academic sector was funded from state and local sources, but only 10 percent of the work in the private sector. Large private-sector organizations and organizations that specialize in education RDD&E in particular have few other sources of funding: half of the organizations that spent more than $1 million in 1975 for education RDD&E received at least 75 percent of their funds from the

TABLE B-8 Types of Organizations in Private Sector[a]

	All Organizations		Organizations Spending $1 Million or More	
	N	Percent	N	Percent
Education RDD&E	155	35	26	47
Other RDD&E	56	13	9	16
Non-RDD&E	213	48	18	33
Health care	50	11	3	5
Associations, labor unions	35	8	3	5
Private schools	24	5	--	--
Social science	17	4	--	--
Child care	16	4	--	--
All others	71	16	12[b]	22
Government agencies	23	5	2	4
TOTAL	447[c]	100	55[d]	100

[a]Includes government agencies other than public education agencies.
[b]Publishing, Broadcasting--2. Management Consulting--2. Information Services--2. Other--6.
[c]Information not available for 31 cases.
[d]Information not available for 3 cases.
SOURCE: ARROE mail and telephone respondents.

federal government, and one-fourth of them received at least 90 percent from the federal government.

The ARROE data show that large performers (expenditures of $1 million or more) account for the bulk of all expenditures in education RDD&E in the private sector: while they are 18 percent of all organizations listed in ARROE, they accounted for 77 percent of all reported expenditures. For the subset of organization for which there are more detailed data, the picture was similar; furthermore, expenditures for evalution are even more heavily concentrated among major performers than are expenditures for all RDD&E (see Table B-9). But these performers do not fit the image of an industry whose only activity and source of revenue is the performance of evaluations in the field of education: federally funded evaluation work is concentrated in large organizations with diversified activities that encompass various topical areas (for example, the Rand Corporation, Abt Associates, and Applied Management Sciences) or several different research functions or activities in education (for example, ETS).

TABLE B-9 Distribution of Total Expenditures and Evaluation Expenditures in Private and Academic Sectors by Major and Minor Performers[a]

	Total RDD&E Expenditures in 1977		Expenditures for Evaluation in 1977	
	Percent	Number	Percent	Number
Private sector				
All organizations	100.0	354	100.0	153
Major organizations	79.6	58	82.7	32
All other organizations	20.4	296	17.3	121
Academic sector				
All organizations	100.0	943	100.0	474
Major organizations	50.1	92	46.1	39
Minor organizations	49.9	851	53.9	435

[a]Major performers are those who spent more than $1 million for all RDD&E activities in 1977; minor performers are all others.
NOTE: "Total RDD&E Expenditures" column is based on both mail and telephone respondents. "Expenditures for Evaluation" column is based on mail respondents only. All cases with missing data were excluded.

This is not to say that one or another organization may not have come into existence for the purpose of only such activities--or even for the purpose of performing a single contract with a given agency, a practice highlighted in a recent GAO report,[8] especially with respect to former employees (U.S. General Accounting Office 1980). Small performers do carry out a fair amount of educational research and research-related work, and some may fit the image of the "beltway bandits" so prominently mentioned in all the periodic exposes of the research and contract world. It is also possible that such respondents were especially unlikely to return the ARROW questionnaire and were interviewed by telephone and so were underrepresented in the group from whom detailed information was obtained. However, the evidence indicates that the bulk of evaluation work is done by a relatively small number of well-established and fairly large organizations. This hypothesized distribution of activities across types of organizations is confirmed by an (incomplete) inventory of competitive evaluation contract awards made in 1977 and 1979 (Kooi et al. 1978,

in press). An earlier study by Biderman and Sharp (1972) led to similar conclusions: while it identified a large number of active organizations in the competitive procurement process, it found that awards for the unrestricted, open procurements most often went to very active bidders, usually large organizations. Since 1972, with increasing emphasis on open competitions, this trend has no doubt accelerated.

As is shown in the next section of this paper, the major performers of evaluations have large professional staffs drawn from a wide range of disciplinary backgrounds. Less is known about the smaller organizations that perform the balance of federally funded evaluations; their activities and staffing patterns are largely undocumented since they have not become part of the professional and disciplinary networks in which the large organizations participate.

Evaluation in Academic Institutions

As was shown in Table B-2, evaluation clearly represented a smaller share of total RDD&E activities for academic organizations than for other performers. Furthermore, despite the fact that academic organizations are the largest performers of all education RDD&E, the dollar amounts involved in evaluation work were relatively small. It is not possible to ascertain from the ARROE data to what extent academic evaluation expenditures were funded with federal dollars obtained directly through a grant or contract from one of the education agencies in HEW or with federal dollars that had gone to a state or local agency that in turn contracted the evaluation to a college or university.

When social-science-based evaluation was first used to assess social programs, academic institutions were frequent performers of major evaluations, usually under grant or sole-source contract arrangements. The reasons for a gradual shift from grants to contracts and from academic to other types of research performers have been amply discussed in a number of publications (see, e.g., Williams 1972), most recently by Levitan and Wurzburg (1979), who claim that by 1974 HEW had ruled out further support of evaluations under grants and that sole-source contracting became increasingly difficult. They report that by 1979 officials estimated that less than 10 percent of HEW evaluation funds were awarded

noncompetitively. Whether the decline in federally funded evaluation activities on the part of academic units is due to their decision not to participate in competitive procurements or to lack of success when they do so cannot be ascertained from available data. It is clear that they do not win many competitive awards: Kooi's inventories of competitive procurements for 1977 and 1979 showed only one study in each of the two years that could be unequivocally classified as an evaluation study competitively awarded to an academic institution.

In their study of evaluation performers, Biderman and Sharp (1972) found that only 11 percent of the 1,324 organizations identified as RFP recipients were academically affiliated institutions, and the majority of these had received the RFP at the agency's initiative. A total of 225 bids were filed for 36 procurements; only 17 of them were submitted by academically affiliated organizations; and only one award, not for an evaluation study, went to an academic organization. These earlier data suggested that academic organizations did not participate very actively in the federally organized competitive procurement system at that time, and this may not have changed a great deal since.

Evaluation in Public Education Agencies

Federal dollars are spent by state and local public education agencies primarily to perform evaluations that are mandated in conjunction with federally funded education activities. In addition, state or local agencies may carry out federally funded demonstration or research projects that have built-in evaluation components. State or local agencies can also participate in competitions for evaluation contracts; this is rare, however, since there are more restricted types of competitive procurements (for example, for various demonstration and innovative programs) that are targeted primarily to public education agencies and hence are preferred by them.

As shown in Table B-6 above, evaluation occupies a more prominent place in the activities of local education agencies than in those of any other sector: more than 40 percent of such agencies included in the ARROE study indicated that more than half of their research and research-related activities were devoted to evaluation. The resources of these education agencies are often

considerable; among the surveyed organizations that reported spending more than $5 million in 1977, two were LEAs: Los Angeles and Leon County, Florida. However, many of the evaluation activities undertaken by such agencies tend to rely heavily on student tests, so that the boundaries between "testing" and "evaluation" are often hard to draw. It may be for this reason, or perhaps because LEAs do not always identify sources of evaluation funding accurately, that LEAs appear to be somewhat less dependent on federal funds than are other public agencies to carry out their evaluation activities (see Table B-10).

Evaluation--at least as defined for the ARROE study--plays a lesser part for state agencies than it does at the local level, but (as shown in Table B-3 above) the actual amounts involved are larger because of the higher expenditure levels in these agencies. Relatively few state and intermediate service agencies spent more than 25 percent of their RDD&E resources on evaluation.

According to the National Science Foundation (NSF) (1980), local personnel generally tend to perform most

TABLE B-10 Percent of All Organizations Reporting That Half or More of Their Funds Came From Federal Sources in 1977

	Organization for Which Evaluation was a Major Activity		Organization for Which Evaluation was Not a Major Activity	
	Number	Percent	Number	Percent
Public				
SEA	26	73.1	18	50.0
ISA	37	35.1	23	30.4
LEA--large	33	24.2	5	60.0
LEA--small	84	11.9	28	35.7
Academic	241	36.9	290	39.3
Private				
Major	16	68.6	8	62.5
All other	70	52.9	74	62.2

NOTE: Organization could check more than one "major activity" area.
SOURCE: ARROE mail questionnaire respondents.

research and related activities in-house, although the portion performed extramurally has increased in recent years, from 20 percent in 1966 to close to 40 percent in 1977. Of that 40 percent, private firms performed 17 percent; not-for-profit firms, 13 percent; and universities and colleges, about 10 percent. The extent to which this pattern holds for education as compared with energy, environment, health, etc. cannot be ascertained from the NSF data. However, information from a recent survey of school districts (Lyon 1978) indicates that on the average only 6 percent of the budget of a district's evaluation units was spent on outside consultants, although there was considerable variation from district to district. State agencies, too, appear to perform most work in-house: one recent study reports that 73.3 percent of all research and research-related activities are conducted by agency staffs (Mathis and Walling 1979).

PERSONNEL

The organizations included in ARROE employed approximately 22,200 full-time and 12,000 part-time professionals in 1977. The distribution of personnel matches the distribution of funds, although in the aggregate, academic institutions allocate more persons per dollar than organizations in the other sectors (see Table B-11). Staff qualifications vary by sector, with those in academic organizations most likely to hold a

TABLE B-11 Staffing and Funding Allocation for Education RDD&E, by Sector, 1977 (in percentages)

Sector	Full-Time Professionals	Part-Time Professionals	Funding
Private	27	16	33
Academic	58	76	51
Public	15	7	16
TOTAL (percent)	100	100	100
Number	22,286	12,024	$735 million[a]

[a]Based on reports from 80 percent of respondents.
SOURCE: ARROE mail and telephone respondents.

doctorate degree; more surprising, private-sector organizations are more likely to employ people from a wider spectrum of academic disciplines (see Table B-12).

As was noted above, most organizations do not specialize in evaluation, and therefore staff is likely to be used interchangeably between evaluation and research. Insofar as the ARROE data allow differentiation, however, the following characteristics apply to those staff who actually worked on evaluation studies in 1977. First, the percentage of total staff allocated to all evaluation was slightly lower than the percentage of expenditures: 22 percent of funds and 17 percent of personnel were devoted to evaluation and policy studies. This is not unexpected since the staff/dollar ratio for all RDD&E is highest in the academic sector and lowest in the private sector (see Table B-11) and the private sector is the most frequent performer of evaluations. In the absence of data, one can only speculate about the reasons for the difference in staff/dollar ratio. It may be due to the greater

TABLE B-12 Selected Characteristics of Full-Time Staff, by Sector, 1977

	Public	Academic	Private
Percent of full-time staff with doctorates	28	67	31
Percent with major field of expertise in:			
Education	65	58	41
Psychology	9	10	16
Other social science	3	9	12
Humanities	2	2	5
Physical and biological sciences	1	7	2
Mathematics, statistics	7	2	5
Business economics, accounting, public administration	3	2	5
Communications, library science	3	3	7
Operation research, systems analysis	4	1	4
Other	3	6	4

SOURCE: ARROE mail respondents only; response rate to this question was 40 percent.

dependence of private performers on federal funding in comparison with public and academic institutions that may be able to cover overhead or some personnel costs from regular budgets. The availability of low-cost labor (graduate students and post-doctoral fellows) on many campuses may also be reflected in these figures; the data in Table B-11 suggest that academic institutions are able to take advantage of the availability of faculty or students for part-time employment. However, the difference in staff/dollar ratios may also be due to the fact that private contractors and grantees spend higher proportions of their funds on nonpersonnel items such as computer work, which is often available at relatively low cost in university settings. Another factor may be high overhead costs in the private sector due, in part, to proposal writing or marketing costs that are especially high in that sector.

Second, there are also some noteworthy differences with respect to staff training. Table B-13, which presents differences in the presence of doctorate holders on the staffs of reporting organizations, uses a different base from most of the other data shown in this paper. Organizations were categorized according to their answer to a question about major activity areas, one of which was program and project evaluation. (Respondents were free to check as many areas as applied to their organizations, and most checked more than one.) Respondents were then classified into evaluators and nonevaluators based on their answers.[9] Again it is necessary to bear in mind that not all evaluation performers are in the "evaluator" category, but only those who indicated that evaluation was a major activity. Although in many cases the cell sizes are quite small, some comparisons can be made: in the academic sector, the participation in research and research-related activities of those who have Ph.D.s is ubiquitous. About three-fourths of all academic units performing this type of work employ Ph.D.s, whether they do evaluations or not. In most other types of organizations, there tends to be at least one person with a Ph.D. on the staff, but the number of Ph.D.s is greater if one of the major activities is evaluation work. The difference is especially striking in public agencies, but in the private sector, too, evaluation performers almost always have at least one person with a Ph.D. on the staff. Only in state agencies does the presence of evaluation activities not affect staff characteristics:

TABLE B-13 Selected Characteristics of Organizations With and Without Evaluation as a Major Activity

	Private Profit	Private All Other	Academic	Small LEAs	Large LEAs	ISAs	SEAs	Total
Organization for which evaluation is a major activity								
Percent of full-time staff with doctorates								
0	6.7	24.6	8.3	19.7	5.7	20.7	11.5	13.3
1-24	26.7	16.4	5.2	6.6	31.4	24.1	11.5	11.7
25-49	26.7	26.2	10.9	7.9	25.7	24.1	50.0	17.5
50+	40.0	32.8	75.1	65.8	37.1	31.0	26.9	57.5
Number	7	60	199	18	7	15	18	324
Organization for which evaluation is not a major activity								
Percent of full-time staff with doctorates								
0	14.3	31.7	11.1	44.4	28.6	60.0	5.6	19.1
1-24	42.9	10.0	5.0	0.0	14.3	6.7	27.8	8.1
25-49	42.9	21.7	9.0	16.7	57.1	33.4	66.6	13.6
50+	0.0	36.7	74.9	38.9	0.0	0.0	0.0	59.3
Number	15	61	193	76	35	29	26	435

SOURCE: ARROE mail respondents only.

there is at least one person with a Ph.D. in most agencies, regardless of the nature of the work. For-profit organizations are especially likely to employ Ph.D.s if they are engaged in evaluation. It should be noted, however, that the data in this category are from a small number of organizations.

Equally interesting differences can be observed with respect to staff specialization, i.e., the presence of disciplinary specialists on an organization's staff. Table B-14 shows that organizations for which evaluation is a major activity tend to have more diversified staffs. This is especially the case in the private sector, but holds true in the other sectors as well.

Obviously, staff size, percent of staff with Ph.D.s, and diversification of disciplines among the staff are not in themselves a guarantee of efficient or high-quality performance; in the aggregate, however, they furnish some indication of the efforts expended by those who carry out evaluation work within the educational research community. Generally, the performers of evaluation activities tend to be organizations with staffs that are larger, better trained, and more diversified than the staffs in organizations for which other types of research and research-related activities constitute a major activity.[10]

CONCLUSION AND COMMENT

Despite the difficulties of distinguishing between those who perform evaluations and those who perform other types of educational research, and between those who are funded from federal sources and those who are not, some differences among performers emerge from the ARROE data. Of greatest interest are differences between academic and private-sector organizations, since they are the true outsiders who perform evaluations under federal auspices. The public agencies are important performers and their activities are of crucial importance in the assessment and evaluation of the impact of federal dollars spent on education, but the mechanisms at the disposal of the federal government in initiating and monitoring evaluations in the public sector are very different from those that apply to contracts and grants awarded to academic and private organizations. Furthermore, public evaluation units exist and function to a large extent in a self-contained universe, while the

TABLE B-14 Percent of Organizations with at Least One Full-Time Staff Member in Selected Disciplinary Fields (in percentages)

	Education	Psychology	Math and Statistics	Other
Private profit				
Major evaluation performer	100.0	71.4	35.7	100.0
Other	71.4	57.1	50.0	53.8
Private other				
Major evaluation performer	87.1	42.6	16.2	66.7
Other	65.5	29.3	5.2	66.7
Academic				
Major evaluation performer	78.8	37.6	16.5	52.0
Other	67.7	30.3	12.2	46.5
Small LEA				
Major evaluation performer	85.9	22.5	19.2	33.3
Other	88.9	11.1	11.1	25.7
Large LEA				
Major evaluation performer	85.3	55.9	51.5	16.7
Other	83.3	50.0	23.3	40.6
ISA				
Major evaluation performer	93.1	34.5	31.0	33.3
Other	73.3	13.3	6.7	55.2
SEA				
Major evaluation performer	96.3	22.2	33.3	56.2
Other	94.1	25.0	22.2	70.4
All organizations				
Major evaluation performer	84.5	37.2	73.8	53.2
Other	64.3	29.0	12.4	49.4

SOURCE: ARROE mail respondents only.

two other sectors compete, interact, and cooperate with respect to much of the evaluation work and related activities.

It is clear from the ARROE data that academic units continue to do the bulk of educational research in general and that large numbers of well-qualified persons are involved in such activities. Universities have at

their beck and call resources that can be used on a part-time basis, as the ARROE data clearly show; such utilization is often economical and advantageous. Therefore, it seems unfortunate that academic institutions participate so little in one of the most important segments of the work being done today in the field of educational research, namely evaluation. While private organizations can to some extent duplicate university staffing arrangements through the use of consultants, including academic consultants, this often requires travel, less opportunity for day-by-day involvement, and higher costs. Such arrangements also cannot provide the opportunity available at universities for faculty and graduate students to stay in close touch with practical problems and federal concerns and for better articulation between graduate training and employment requirements.

But it is also worth noting that as a result of the shift to the private sector, a number of organizations have emerged that have large, sophisticated, multidisciplinary staffs that are very knowledgeable about the major educational issues of the day. Whether the present federal procurement system leads to the best possible utilization of these resources is not clear: earlier research (Biderman and Sharp 1972) and anecdotal evidence suggest that the timing of requests for proposals, the imposition of tight deadlines coupled with time-consuming clearance procedures, and the need to devote enormous efforts to proposal preparation all militate against optimal utilization. In any case, the maintenance of this capability is far from certain, given the reduction in the volume of federal evaluation procurements in education and the ability of many of the private-sector firms to redeploy personnel to areas such as energy, or transportation, or defense, which may be of higher priority than education. The loss of these specialists will be detrimental to the field of educational research, which has long suffered from a narrow and parochial perspective.

As the report and other cited sources show, a convincing case can be made that the current procurement system is not designed for optimal efficiency. Increasingly, the choice of grants or contracts as a means of supporting work is not based on substantive considerations, and the eligibility criteria (based on such categorical descriptors as profit or not-for-profit, minority-owned, etc.) may preclude performance by

well-qualified organizations. The contracting system is a necessary ingredient of a government process in which a heavy activity and service load is mandated together with low federal personnel ceilings (Sharkansky 1980), but it needs to be made more flexible. The data presented in this paper suggest that most evaluation work in education commissioned at the national level is done by performers who have the experience and resources to perform it well, despite occasional awards that are open to question (U.S. General Accounting Office 1980). But the universe of performers is a relatively narrow one. The diversification of this universe through greater participation by university-based research groups, the preservation of existing proven resources in the private sector, and improvements in the procurement system should be of concern to those who seek to increase the quality and utility of evaluations.

NOTES

1 This estimate is based on Abramson's data (1978), which showed for 1977 a total of only $63.6 million for all federally funded evaluations. While Abramson's definition of evaluation yields a much lower estimate of total evaluation activities than is generally used by other researchers, this figure can be used to gauge the relative shares of expenditures by various government agencies. Of the $63.6 million, HEW accounted for more than half, with welfare agencies accounting for the largest bloc (more than $16 million) and education for the second largest (close to $14 million).

2 Because of item nonresponse--especially with respect to funding questions--the actual numbers of cases available for analysis is usually somewhat smaller.

3 Especially in academic institutions, it is not uncommon to have several separate, autonomous units (for example a school of education, a survey research unit, and the department of psychology) performing education research and research-related activities. Of the 1,268 academic organizations shown in Table B-2, the largest number (34 percent) were individual departments, followed by divisions or schools (24 percent) and bureaus and centers (24 percent).

4 The data files were examined for nonresponse bias and for mail versus telephone respondent bias, as well as

for error due to missing data (item nonresponse). For the variables available for this analysis (size of organization, sector, etc.), there were no obvious biases, but of course there is the always unanswered question about characteristics of reluctant respondents or nonrespondents that demographic variables do not capture.

5 These data are based on the subset of mail respondents. Total expenditure data for all ARROE organizations showed the same ranking and order of magnitude, but slightly different percentages--academic 57 percent, private 33 percent, public 16 percent--suggesting that "active" public education agencies were more likely to return the mail questionnaires.

6 As shown in Table B-8, this nomenclature includes a few government agencies other than public education agencies.

7 The 10 private-sector organizations that reported expenditures of more than $5 million (in most cases for fiscal 1977) are Abt Associates, Inc., Education Commission of the States, Education Development Center, Inc., Education Finance Center, Educational Testing Service, Far West Laboratory for Educational Research and Development, Montefiore Hospital and Medical Center, Northwest Regional Education Laboratory, St. Louis Childrens Hospital, System Development Corporation.

8 None of the contracts criticized on this basis in the GAO report were awarded by an education agency.

9 I am indebted to Georgine Pion and Robert Boruch of Northwestern University for suggesting these tabulations and making funds available for the required computer work.

10 But it should be kept in mind that ARROE encompasses a highly diverse set of organizations, including some that specialize in development and dissemination, for which these same characteristics may not be relevant to work performance.

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APPENDIX

C

How the Evaluation System Works: The State and Local Levels

Freda M. Holley

Kaleidoscopic is a good term to describe the evaluation of federal programs at the local and state level. There is enormous variation both from state to state and from district to district. Moreover, the practice of evaluation differs across programs within those states and within those districts.

This paper attempts to give some flavor of that variation in such areas as evaluation funding and budgets, personnel, evaluation activities and practices, and, finally, in dissemination and utilization. The paper concludes with some discussion of the implications of this variation. The reader is cautioned against a quick assumption that such variation is undesirable: it may well be that such variation is not helpful to those making decisions at the federal level, but it must be remembered that national program success can only be built block by block at the local level. Considerable variation may be necessary to foster program implementation and to respond to differing needs at the local level. Imagination may be required at the national level to use such variation creatively to the benefit of national purposes. It may also be necessary to recognize that it is pointless to attempt evaluation at the national level; one evaluation system cannot serve both the local, state, and national needs. In any case, the

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The author, a member of the Committee, is head of the Office of Research and Evaluation of the Austin Independent School District, Austin, Texas.

size of the expenditures and the importance of the local endeavor dictate that the Department of Education should work to optimize the return from evaluation efforts at the local and state level, both for local and national aims.

HOW ARE EVALUATIONS FUNDED?

Our best evidence on the extent of variation in federal program evaluation at the state education agency (SEA) and local education agency (LEA) levels is related to evaluation budgets. Budgets are a major concern in local and state evaluation efforts, of course, and for this reason most of the data collection has focused on them. The most recent data were collected in a survey of state and large city evaluation units on behalf of a task force on resource allocation in program evaluation appointed by Division H (School Evaluation and Program Development) of the American Educational Research Association (AERA). This survey (Drezek and Higgins 1980) reported that the size of LEA budgets for the evaluation of Title I programs ranged from zero to $935,000 for Title I program budgets of $104,000 to $52 million. Similarly, the range of median reported funding expressed as a percent of program funding across major programs ranged from 7 percent for ESEA Title IVC (innovative practices and curriculum) to 0.5 percent for P.L. 94-145 (special education); see Table C-1 for details.

Doss (1979) surveyed large districts in the Southwest in order to gather descriptive information about their Title I evaluation efforts. This survey reveals similar variation: one program with a $3,563,071 budget had an evaluation budget of $10,000; another program with a budget of $2,447,020 had an evaluation budget of $88,036 (see Table C-2). The percentages reported by Doss closely parallel those from a telephone survey reported by Boruch and Cordray (1980). That survey, conducted as a part of their larger appraisal of federal program evaluation, indicated that in larger districts (defined as those with enrollments of 25,000 and above), 1.6 percent of Title I allocations went to evaluation.

Webster and Stufflebeam (1978) surveyed urban districts nationally to gather descriptive information about the practice of evaluation in large school systems. Although their data are not specific as to federal program source, the indication of the variation

TABLE C-1 Program and Evaluation Budgets of LEAs, 1978-79

Federally Funded Program	Number Having Program	Program Budget ($ thousands)			Evaluation Budget ($ thousands)			Percentage of Program Budgeted for Evaluation
		Low	Median	High	Low	Median	High	Median
	Smaller LEAs (number = 30)							
ESEA Title I, for disadvantaged students	21	104	700	3,234	0	13	92	1.5
ESEA Title I, for migrant students	6	46	150	423	0	3	6	1.0
ESEA Title IV-C, innovative curricula	13	10	50	315	0	10	100	7.0
ESEA Title VII, bilingual programs	6	85	230	440	0	5	26	1.5
ESAA Emergency School Aid Act programs for desegregating LEAs	4	140	520	4,354	5	8	31	1.5
P.L. 94-142, special education programs	13	50	110	600	0	3	43	2.0

	Larger LEAs (number = 25)							
ESEA Title I, for disadvantaged students	21	1,078	4,770	52,000	17	100	935	2.0
ESEA Title I, for migrant students	4	48	290	798	3	7	41	4.5
ESEA Title IV-C, innovative curricula	16	5	250	2,112	0	17	66	4.0
ESEA Title VII, bilingual programs	13	107	390	7,372	0	18	150	3.0
ESAA Emergency School Aid Act programs for desegregating LEAs	15	350	1,410	9,400	0	37	231	3.0
P.L. 94-142, special education programs	12	110	510	10,254	0	2	299	0.5

NOTE: Low and High designate the lowest and highest values, respectively, reported for each budget item by each LEA category. For each LEA having a particular federal program, the percentage of the program budget allocated for evaluation was computed. Entered in this table are the medians of these percentages budgeted for evaluation
SOURCE: Drezek *et al.*, 1980.

TABLE C-2 Title I Evaluation Budgets of 12 Southwestern Districts

District	Total Title I Budget $	Title I Evaluation Budget $	Percent
A	no response	75,000	--
B	2,660,923	25,000	0.9
C	4,311,745	69,607	1.6
D	4,188,526	66,320	1.6
E	12,277,805	75,000	0.6
F	3,374,458	43,000	1.3
G	9,450,000	202,973	2.2
H	4,500,000	115,661	2.6
I	3,563,071	10,000	0.3
J	2,975,878	36,740	1.2
K	2,447,020	88,036	3.6
L	5,485,432	50,999	0.9
Mean	5,091,351	71,212[a]	1.4
Median	4,188,526	66,320[a]	1.6

[a]Includes only those districts reporting both Title I and evaluation expenditures.
SOURCE: Doss (1979).

in the amount of federal funds available for evaluation also parallels the findings from the later studies (see Table C-3). As Table C-3 shows, federal funds constitute a considerable portion of most school district evaluation resources. This is somewhat at odds with the finding in Lyon and Doscher (1979) that the funding sources for the average evaluation office is 65 percent local, 18 percent federal, 15 percent state, and 1 percent other. This discrepancy may be related to urban differences and to whether flow-through monies are treated as state or federal resources.

The ranges of funding are as great as they are primarily because of the way in which evaluation funding is secured and secondarily because of differences in evaluation requirements across federal programs and across state agencies. One way to illustrate the situation is to describe how funds for evaluation of three different federal programs are typically secured using the experience of one district as a focal point of the description. The district is the Austin Independent School District, Austin, Texas. Although procedures are not exactly the same in other districts, there is considerable similarity.

TABLE C-3 Funds Expended on Research and Evaluation Activities Within Large Urban School Districts

District	Local/State Funds[a] ($ thousands)	Federal Funds[a] ($ thousands)	Total ($ thousands)	Cost Per Student[b] ($)
New York	300	10,000	10,300	9.49
Dallas	1,451	1,060	2,511	18.05
Philadelphia	1,222	1,378	2,500	9.62
Chicago	900	1,300	2,200	4.10
Detroit	1,203	860	2,063	8.63
Boston	941	650	1,591	18.37
Los Angeles	800	780	1,580	2.59
Baltimore	0	1,299	1,299	8.17
Atlanta	845	254	1,099	13.26
Dade County	402	290	692	2.89
Austin	356	318	674	11.50
San Antonio	271	300	571	9.44
Milwaukee	274	274	548	5.00
Cleveland	260	250	510	3.98
St. Louis	140	360	500	5.95
Portland	411	50	461	7.64
Seattle	350	75	425	6.77
Cincinnati	141	253	394	5.98
Fresno	210	180	390	7.10
Nashville-Davidson	226	164	390	5.00
Denver	336	0	336	4.50
San Jose	275	60	335	9.01
New Orleans	294	0	294	3.15
Fort Worth	155	121	277	3.89
Phoenix	141	120	261	6.50
Honolulu	194	67	261	5.14

TABLE C-3 (*continued*)

District	Local/State Funds[a] ($ thousands)	Federal Funds[a] ($ thousands)	Total ($ thousands)	Cost Per Student[b] ($)
Kansas City	150	83	233	4.15
Wichita	102	114	216	4.32
El Paso	96	98	194	8.14
Corpus Christi	151	33	184	4.49
Omaha	98	67	165	3.07
Dayton	148	0	148	3.59
Oklahoma City	105	19	123	2.57
Anne Arundel	114[c]	0	114	1.47
Orange County	40	27	67	0.80
TOTAL	13,002	20,904	33,906	

[a]These figures are self-reports. Where zeros (0) appear funds may be allocated for planning and evaluation to departments other than the main evaluation department.
[b]Student enrollment figures were obtained from the *Public Education Directory 1977-78*, published by Tomi Publications, Chicago, Illinois.
[c]This budget is probably somewhat higher since evaluation and research functions are performed by a number of different departments.
SOURCE: Webster and Stufflebeam (1978).

ESEA Title I

Title I evaluation is the largest federal program activity in the Austin Independent School Ditrict (Austin ISD) as it typically is in all SEA and LEA evaluation units. LEA funds for evaluation are secured as a part of an application to the SEA. The evaluation is developed by the Austin ISD as one component of an overall Title I program. The component sets out the scope of work to be performed, identifies the personnel to carry it out, and develops a budget for the activity. The amount of the budget for the evaluation component is initially established by the district on the basis of a district policy statement that ties evaluation funding to program size on a sliding-scale guideline. (This approach is not typical since most agencies lack such a policy statement.) What goes into the Title I application for evaluation is generally affected by the attitude of the LEAs toward evaluation, the way in which the application content is controlled within the LEA, the evaluation capability of the LEA, and in turn, by all those same factors at the SEA level. In the Austin ISD, the development of applications is watched rather closely by both the school board and by the top district management. Moreover, the staff of the department handling federal program fund applications is favorable toward research. In Austin at one time, and in many districts today, the application content could be almost entirely controlled by the application writer. When this is true and when the writer is not favorable toward evaluation, it can have considerable impact on the evaluation capability.

Once developed, the application is negotiated by the district program officer with the SEA program officer. The entire application is generally under the supervision of one SEA consultant; the SEA evaluation unit will almost never be involved in the review or negotiation of the application. Similarly, the district evaluation staff will typically not be involved in the negotiation. The SEA program officer is very unlikely to have seen the district evaluation report from the previous year and may well have little appreciation for the cost of evaluation. Since the LEA program officer will likely negotiate with the SEA program officer, the former's willingness to support the evaluation budget will be crucial at this point. When this kind of situation exists, of course, the positive or negative nature of the

last evaluation report may well influence the LEA program officer's willingness to offer that support.

In summary, the Title I evaluation budget at the local level may be influenced by a number of political factors many of which will not favor rigorous evaluation and reporting. A better model would provide for involvement of the SEA evaluation staff throughout the application and approval process. Not only would evaluation activities get less one-sided consideration, but--more important--evaluation staff could introduce improvements into the program plans based on the results of completed studies.

Emergency School Aid Act (ESAA)

ESAA programs have been another source of considerable evaluation funding in the past, particularly for urban school districts. When the initial guidelines for application were issued, they were in many ways model guidelines for the development of high-quality educational proposals and programs. They set up criteria for scoring proposals that were based on a number of aspects of the program including the objectives and the evaluation. The forms were laid out so that the activities and evaluation should flow from the objectives. It has been interesting to watch what has happened to the actual awarding of grants in view of that model.

The Austin ISD annually goes through an elaborate process of proposal development that involves community hearings, working with an advisory group, and extensive staff involvement. The product of such extensive political input is usually a huge, uncontrolled set of small fragmented components, one of which is evaluation. In the Austin ISD the resulting product usually involves every school campus, some community outreach, and various disciplines from counseling to remedial reading. Even under normal resource constraints, an evaluator would stand in awe of trying to develop accountability measures for implementation and achievement of objectives. There are, however, some additional resource constraints that have at times made the task out of the question; they are discussed below.

After the proposals are put in final form by the LEA, they are reviewed by SEA representatives and submitted to the federal level. Until 1979, proposals were submitted

to the regional office; now the Washington ESAA office staff handles the projects. The ESAA office customarily brings reader panels in to review the proposals. These readers try to apply the criteria set up in the ESAA application process to the proposals. These readers are often ESAA program officers from other LEAs and from SEAs. Again, these readers are unlikely to have any knowledge of evaluation. Neither readers nor program officers often understand the sophisticated set of criteria originally established for ESAA. For example, the original guidelines called for awarding points on the basis of well-developed objectives. Specific percentages were mentioned as desirable. At least regionally this was eventually interpreted as "the more percentages the better." This eventually led to such meaningless objectives as "10% of a 10% sample of high school students will score 75% on a measure of involvement"! Our office was told at one point that a comparison based on a significantly higher performance of a program group over a control group was unacceptable.

In the early 1970s, the Austin ISD did try meaningful evaluation in ESAA programs several times. We had budgets of as much as $84,000 for a program with a budget of $840,000 for the ESAA bilingual component. (At one time, Austin had three large ESAA programs: basic, pilot, and bilingual, so that the annual ESAA program budgets totalled almost $2 million.) More recently, as the impact of Austin's last court order on desegregation declined, funding declined as well, and evaluation budgets fell more drastically than program budgets. Thus, for the last three years, the evaluation/program budgets for ESAA basic (the only component remaining in Austin by last year) have been respectively: $3,000 and $163,970 in 1979; $12,000 and $414,255 in 1978; and $5,400 and $488,900 in 1977. The drastic decline in the evaluation budget from the early years to 1977 was due to a regional, or perhaps national, interpretation of the legislation that a set-aside of 1 percent for national evaluation was a limit on local evaluation as well. Of course, there is a considerable difference between what can be done with 1 percent nationally and what can be done with 1 percent of a small local budget. Any true evaluation of local ESAA became impossible even when that evaluation was merely the mandated measurement of objectives set out by the SEA. Such objectives had to be carefully written around what could be measured by using existing district data, whether they had a strong

relationship to the program activities or not, since ESAA funds cannot be used to purchase tests.

However, by that time we had learned that ESAA grants were generally going to be funded late and that, consequently, program implementation would lag badly. We could predict that results from the program would not be significant. In addition, for some reason, Austin has consistently been placed on hold by the Office of Civil Rights for the receipt of ESAA funds, and programs do not begin until after school begins--too late for hiring good staff or developing good programs. ESAA seems to this writer a model for how not to do federal programming.

ESEA Title VII Bilingual Education

A third type of evaluation experience came under ESEA Title VII bilingual education. For this grant the Austin ISD submitted a 5-year proposal directly to the Office of Education in the spring of 1976. It had been initially reviewed by the Texas Education Agency. Although it is customary for Title VII to require third-party evaluation, the Office of Education program officer working with Austin at that time was uniquely interested in true research and was convinced that the organizational placement of the Austin ISD's Office of Research and Evaluation, reporting directly to the superintendent and the board, did indeed make its program independent. The officer believed that it could function within the district and with the Office of Education as a third-party evaluator and that it could produce work of value to bilingual evaluation in a special way. This 5-year grant has permitted a longitudinal evaluation of the district's bilingual education effort that has provided distinctive information and has had a real influence on the conduct of the bilingual program in the school system. It constitutes one of the few longitudinal evaluations of bilingual program students in the country; the findings have been disseminated through a national conference held in August 1980 with the joint support of the National Institute of Education, the Texas Education Agency, the Austin ISD, and a number of other agencies.

The budgets during those years have been adequate to permit a fairly high-quality evaluation that focused in its early years on implementation and process evaluation and later on the longitudinal outcomes. The first-year

(1976) evaluation budget was $88,168 with a program budget of $845,908; the fifth-year (1980) evaluation budget was $60,094 with a program budget of $563,000.

Summary

Federal program evaluations are secured by LEAs through applications to one of three agencies: SEAs, regional offices of the Department of Education, or the Washington office of the Department. The LEA application to the SEA is typical of Title I, Title I migrant, and Title IV of ESEA; of certain vocational programs; and of certain special education programs. Generally, these grants are "flow-through" monies: that is, funds are allocated to states based on such factors as census information about the number of low-income students in a state. In some cases, the state in turn allocates set funds to districts based upon similar census information. In other cases, such as with Title IVC for innovative programming, funds are allocated at the state level on a competitive award basis. ESAA grants have come through the regional office in the past and more recently through Washington. The ESAA Title VII bilingual grant is typical of awards secured directly from Washington. These are generally competitive although there is little doubt that political factors weigh heavily in the decisions. For example, the size and importance of bilingual populations within a state and city seem to be important factors in decisions on Title VII.

Methods and sources of funding are constantly changing at every level, as indicated by the shift in ESAA funds from the regional office to Washington. Other funds may be shifted from Washington to the SEA. Each such change results in changes in the procedures for securing funds. Rare is the evaluation office in which staff remains sufficiently aware of these changes and of new sources of funds to be sure that all the available resources for evaluation are tapped.

At the SEA level, funding for evaluation is typically a portion of the funds set aside for administrative costs. This arrangement tends to pit the evaluation unit at the SEA level against the program administration for resources. The SEA policy on evaluation may well be the determining factor in how much is allocated to evaluation. Some states, particularly large ones such as Texas, will also have regional units or service centers.

The service centers' role in federal program evaluations is typically not large. They may perform evaluations for small districts on a contracted basis. In some cases they compete with LEAs for grants, such as Title IVC, and their evaluation activities on those grants will parallel those of the LEAs; their evaluation reports will be provided to the central SEA just as those by the LEAs.

Regardless of the source of the funds, it should be clear that the size and content of the evaluation components of all programs are much influenced by program officers at local, federal, and state levels. In the Drezek and Higgins (1980) survey, only 21 percent of state and local evaluation units reported that evaluation costs were allocated on the basis of a fixed percentage (see Table C-4). Therefore, it is important to note that the control of the budget by program officials is likely to have a real impact on the content and potential credibility of evaluations.

WHO DOES EVALUATIONS?

In most states certification standards are applied to personnel in federal programs. For example, a counselor, administrator, or supervisor must be certified to fill those roles in Texas. In general, evaluators are not certified and no standards are applied to the personnel filling the role of evaluator. In some LEAs and SEAs, the federal program director or coordinator may bear full responsibility for evaluation, and even in agencies with substantial evaluation units, small federal evaluations may be done by program staff. Typically, when program staff are given the responsibility for evaluation, they will have neither training nor experience in evaluation methodology, measurement, or statistical analysis. The author has observed many small school districts in which the person charged with Title I program evaluation is a reading teacher brought directly from the classroom, not only with no training in evaluation, but also with a weak background in mathematics.

By contrast, in some states and for some programs, third-party or contracted evaluations are the rule. The qualifications of the personnel in the contracting agencies will generally vary as much as those of the staff in the LEAs. In addition, although third-party evaluations are supposed to ensure a lack of bias, the contractor sometimes has an eye on future contracts and

TABLE C-4 Methods Used to Determine Program Evaluation Budget in Each Type of Agency

Method	Smaller LEAs (number = 28) percent using method	Larger LEAs (number = 24) percent using method
A roughly fixed percentage of program costs is used.	25	21
An amount is determined by the scope of evaluation work.	54	58
As much as possible, since sufficient amount is seldom received.	25	4
Other method. Examples included "all three of the above," "no fixed rule," need to consider salary levels of available staff.	21	21

NOTE: Some respondents indicated using more than one method. The number of people who indicated that they used a particular method was usually slightly larger than the number who went on to report the actual percentage, or range of percentages, used.
SOURCE: Drezek *et al.* (1980).

may well be gentler in approach than internal evaluators who are permanent staff.

Finally, in many districts and particularly in the large urban systems, well-trained and sophisticated evaluators with doctorates in research and evaluation carry out evaluation tasks. Within those districts having research and evaluation units with such staff, evaluator competencies are reported to be at a fairly high level in most traditional evaluation and statistical areas. In the Webster and Stufflebeam survey (1978), for example, competencies in areas such as multivariate inferential statistics, measurement theory, and experimental design were estimated by departments to be about 3.5 on a scale of 1 to 4 where 4 is "advanced competency." In newer methodologies such as bayesian

analysis and econometric applications, however, the estimates were much lower, ranging from a low of 1.54 where 1 is "no familiarity."

Despite the rather optimistic estimate of the competencies existing in the larger evaluation units, the author feels that even in this area there are considerable problems both in preservice preparation of evaluation personnel and in-service training for current staff. These problems deserve serious consideration.

Preservice Evaluator Training

The competencies required in evaluation are many and varied. Boruch and Cordray (1980, Ch. 4:1) point out the misconception that any one evaluator ever could or should have "all the skills necessary for any evaluation effort." It is thus obvious that any evaluator training program has to involve choices among the many types of skills that evaluators may eventually need. The training that most applicants have evidenced to the author falls short of the minimum requirements needed for a public school evaluation office in three fundamental ways. The applicants lack the degree of statistical and computer programming skills needed; they do not have the certification required by many public schools; and they do not have adequate preparation for dealing with the organizational and political context of the public schools. Over the years the author has found that it is possible to help bright candidates pick up the latter skills and even to provide rather quickly a necessary understanding of the evaluation task as opposed to the research task, but the minimum statistical and computer skills are an absolute entry necessity. Many of the current "evaluation training" programs focus on evaluation theory, but fail to provide adequate training in the fundamental skills. Even though many school systems do make it possible to hire evaluation staff without teacher or administrator certification, few will permit the evaluator without those credentials to move to administrative positions in the evaluation office. Many evaluators do not even realize that such credentials are needed although in many cases it might have been relatively easy for them to pick up such certification as a part of their graduate programs.

There are a number of steps that might lead to better preservice training that could be taken by the Department of Education or Congress. For example:

- Designers of preservice training programs receiving federal support might be required to involve in-service evaluators;
- Federal support might be given to graduate training programs that contain provisions for field experience and internships in an LEA or SEA;
- Field experiences in an LEA or SEA could be offered early in a training sequence, thus providing exposure to requirements in those settings;
- Support might be given to interchanges between university and SEA or LEA evaluation staff of one or two semester lengths so that university programs do not become too insular.

In-Service Evaluator Training

Since a preservice program cannot possibly give an evaluator all the skills that will eventually be needed and since many practicing evaluators do not presently have even the minimum skills, better in-service training opportunities for evaluators are desperately needed.

Many conditions limit practicing evaluators from maintaining and increasing their skills at the present time. Public school evaluation is an all-consuming role. An evaluator works 12 months, with summer bringing the heaviest work load; because resources are often inadequate, the workday and workweek are far longer than those of the average worker. Therefore, once an evaluator is on the job, there simply is not sufficient time available to renew or enhance skills. Turnover of evaluation staff is high: the Austin ISD loses 25 percent of its evaluation staff (15 senior and 20 junior professionals) every year. Perhaps there is such high attrition not only because of the time demands but also because evaluation is an emotionally difficult field. The constant negotiations necessary have been described in several chapters of this report, but inevitably, many practicing educators fear and dislike evaluation and resent the power that comes with evaluation information. The evaluator must deal with those negative feelings on a daily basis. At the same time, the professional rewards for an evaluator in an LEA or SEA are few. The social science research community tends not to esteem evaluation work very highly, and evaluation specialists in universities give limited recognition to work carried on elsewhere. Thus, there is little in an evaluator's

environment that even encourages staying in the field, not to mention participating in additional training if it were available. In fact, however, additional in-service training is really not even available. There are such things as AERA presessions, and the Austin ISD staff regularly participate in those. There are a few week-long university sessions offered during the summer, but summer is the busiest time of the year for an evaluator. (The only time with any slack at all in the Austin schedule is November, December, and January.) And when the evaluator does participate in any of these activities, they tend to be piecemeal and disjointed.

In the face of such a grim diagnosis, are there things that could be done to improve in-service learning opportunities for evaluators? Yes, but most of those things will be very expensive, such as:

- Post-doctoral residential programs in which evaluators return to university training for a semester or two;
- The exchange programs between university and LEA-SEA staff mentioned above would be beneficial to the evaluator as well as the university programs;
- Special project assignments at the federal level with built-in training by resident staff;
- Special training sessions planned and offered on a sequential basis at times favorable to LEA and SEA evaluation schedules;
- Visiting scholar programs such as those already being offered on a limited basis by the Center for the Study of Evaluation.

In addition to such formal efforts, however, much can be done on an informal basis to encourage an evaluator's professionalism and to provide incentives for learning. The author has received enormous benefits in that sense from the network membership established through Division H of AERA and the Directors of Research and Evaluation. The evaluation report awards given annually by Division H were created to provide recognition for evaluation work. The new Journal of Educational Evaluation and Policy Analysis may provide a publication forum for evaluators. Recently, the Title I technical assistance center for the region serving Texas has brought together the Title I evaluators from large cities to form a network relationship for this region. Such networks could be of considerable help in increasing the professionalism of

federal program evaluation staff related to such other programs as Title VII, special education, and career education.

WHAT HAPPENS IN EVALUATIONS?

Compliance activities probably predominate in the majority of federal program evaluations at both the SEA and LEA levels. In many SEAs this may be almost the sole preoccupation. They will design annual report documents to gather information from LEAs, gather such information, and provide it in turn to federal offices. They are likely also to conduct or participate in monitoring visits to LEAs to check fiscal and program plan compliance. Only a few states currently attempt more substantive studies designed to influence state plans for the use of federal program funds or to evaluate the effectiveness of program activities, although the activities in several states are noteworthy.

At the local level, the first priority activities for the evaluation unit also may well be data collection relative to compliance. For example, one of the largest aspects of Title I evaluation may be the collection of data on low-income enrollments by campus, the identification of students eligible for service based on low achievement, and locating students in nonpublic schools or who have dropped out. Until the advent of the Title I models, much of the reporting involved little if any analysis. Similar activities and numbers are fundamental in most federal program evaluation efforts.

After these compliance or record-keeping types of activities, the measurement of performance relative to set objectives is probably the next most typical evaluation activity. Great variety exists across programs in the type of objectives established. I have already touched on those used in ESAA programs; other types may range from achievement outcome objectives to service objectives based on the number of participants served. The survey of Title I programs in the Southwest mentioned earlier (Doss 1979) yielded information that demonstrates both the nature of Title I objectives in reading and a feel for the variety of test instruments used. (Some representative samples are shown in Table C-5.) Boruch and Cordray (1980, Ch. 5:11-12) have appropriately criticized such objectives as arbitrary and insufficient as standards for evaluation. After far too

TABLE C-5 Reading Achievement Objectives in Southwestern Title I Programs

District	Grade(s)	Testing Pattern	On Level?	Test	Expected Gain
A	2-8	Spring to Spring	Yes	MAT	DISTAR Reading I Program--65 percent will show a gain of 0.6 mo./mo. of instruction. DISTAR Reading II Program--60 percent will score at the 2.9 reading level. DISTAR Reading III Program, High Intensity Program, and Reading Skills Program--60 percent will show a gain of 1 mo./mo. of instruction.
C	1	Spring	Yes	CAT	55 percent will show a gain of 0.1-0.6 mo./mo. of instruction. 30 percent will show a gain of 0.7-1.0 mo./mo. of instruction. 15 percent will show a gain of 1.1 mo./mo. of instruction or more.
	6-7	Spring	No	Local Criterion-Referenced Test	60 percent will attain 50 percent of grade level reading objectives. 30 percent will attain 51-60 percent of grade level reading objectives. 10 percent will attain 61 percent or more of grade level reading objectives.

F	1	Fall to Spring	Yes	CAT	For 80 percent of the Title I participants it is expected that the mean posttest stanine will be greater than the mean pretest stanine. For the remaining 20 percent, the posttest stanine will remain the same as the pretest.
H	1-6	Fall to Spring	Yes	MAT	75 percent will gain at least three percentile points.
	7-8	Fall to Spring	Yes	MAT	70 percent will gain at least three percentile points.
I	K-8	Fall to Spring	Yes	MAT	An NCE gain that exceeds zero.
	9-12	Sept., Nov., Jan., Mar., May	Yes	G-M	An NCE gain that exceeds zero.
K	1	Spring Only	Yes	CST or BRST	Will make progress in reading readiness.
	2-8	Fall to Spring	No	CAT	Will show an NCE gain from pretest to posttest on a composite reading score.

SOURCE: Abridged from Doss (1979).

much experiece in dealing with objectives in evaluation, I have concluded that they may be a great tool for planning, but they are a poor tool for evaluation.

Only in a few instances are substantive, long-range, or cumulative effects of federal programs examined. As we in Austin ISD have struggled with federal program evaluation over the years, we have become convinced that such evaluation produces the best information and leads to the best utilization.

An interesting trend in the last few years has been toward what have been called "interpretive analyses," such as: Impact of Title I: A Decade of Progress (Moore and Turner 1976); Limitations of a Standard Perspective on Program Evaluation: The Example of Ten Years of Teacher Corps Evaluation (Fox 1977); Evaluation in the Seventies: What We Have Learned About Program Development and Evaluation (Holley 1977). These reports try to bring together information gained from discrete evaluation efforts either across years or across programs.

HOW ARE EVALUATIONS REPORTED?

Evaluations are reported in a number of ways, both formal and informal. There is probably less uniformity from district to district in reporting than in either budgeting or in activities. Again, it may be illustrative to use the Austin ISD procedures as the center of this discussion of reporting. ESEA Title I involves the most elaborate reporting and is therefore used as the example. The flow of information is charted in Figure C-1.

The school year in Austin runs from July 1 each year to June 30 the following year. Austin's major reports come at the end of the year and the month of June is a hectic, full month of analysis, interpretation, and report writing. As for all Austin ISD evaluation projects, the Title I evaluation staff prepare a final technical report and a 15-page final report. The technical report consists of appendices covering each data collection effort. It is long and voluminous; only a few copies are produced. The 15-page report goes into a book called Findings Volume. The short report is the major communication vehicle about the project. It covers the essential results first, then describes the project and the evaluation and provides some discussion of the results. This short report evolved from our growing

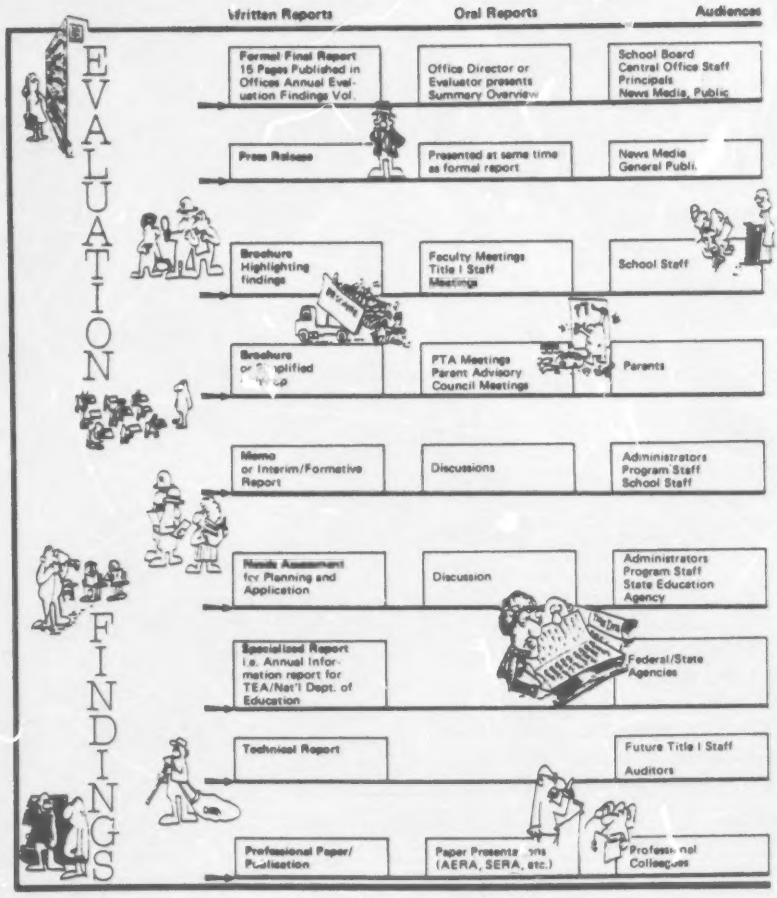

FIGURE C-1 Evaluation reporting for ESEA Title I in Austin, Texas.

experience that reports longer than 15 pages never got read at all. In addition, Title I staff must complete an AIR report--an annual information report--to the SEA. This is a form containing numbers, analysis of the achievements of various components, and a space to indicate changes to be made as a result of the evaluation data. The Texas Education Agency has put considerable effort into improving this reporting form over the years in an attempt to encourage good evaluation and utilization.

The AIR report is signed by the superintendent and submitted to the Texas Education Agency. It is not reviewed by the school board primarily because the board will receive the Findings Volume, which contains the same results but in the usual district format. The format is of concern because, given the limited time available for the presentation and discussion of evaluation results, it is important not to have to expend time or effort to explain differing formats. Soon after June 30, which is the annual deadline for the completion of final reporting, a session with the school board to review all results is held. Thereafter, all reports become public information and freely available. Copies of both the technical and final reports are placed in the board office, the district's professional library, and the Office of Research and Evaluation. Presentations of the results are then arranged early in the school year for principals, instructional staff, and various other groups. All of these formal presentations, however, are not nearly so important as the informal discussions that subsequently occur. Knowledge of important findings relevant to a specific instructional supervisor or administrator may be shared over coffee or lunch. In particular, findings may be reviewed during planning sessions for particular programs or activities.

A follow-up reporting activity for the past few years has been a short brochure summarizing Title I results for teachers and parents. Results are also mentioned in newsletters.

Another critical reporting period for Title I comes during the early part of the calendar year. It is the needs assessment for the preparation of the next year's program plan. This assessment reports data about where students will be and what achievement levels are. From this report, Title I schools for the following year will be designated and cut-offs for eligibility will be established. The report is mainly for in-district use,

but an abstract is provided to the board and the volume itself placed in the board office. Then it becomes public information and is available to the community. It is often used by other agencies in the city in their preparation of proposals for funds.

Thus, all reports prepared about Title I are available for public scrutiny. I do not know whether this is common practice around the country. Although certainly in Texas all submitted reports are public documents and thus available to all, many districts do not make the availability of reports well known. Also, reports are not always submitted to school boards. This may either be because the superintendent wishes to keep the reports internal or because the board is not interested in them.

WHAT IS THE IMPACT AND USE OF EVALUATION?

Given the picture described above, it would hardly be surprising if the impact and use of evaluation at the state, regional, or local level were difficult to trace or document even if we had good procedures for doing so. Much of the current literature on utilization seems to conclude that utilization does occur, but that it takes diverse and difficult-to-trace routes. This writer's subjective observations concur with that conclusion. As a program officer from another Texas district told a group recently, prior to the advent of federal programs you could walk into a school and ask how well the students were performing and never get anything but subjective answers. Now schools all over the state know precise levels at which students, schools, and districts are performing. Sometimes they can even tell you why the levels are what they are. Because federal programs are now so pervasive, we often fail to recognize just how great their impact on the conduct of schooling has been. It has been clearly demonstrated in Texas that where evaluation produces useful results, they do get used in program design. Eventually.

This is not to say that impact and utilization are what one would wish. It is of major concern to this writer that the effects of evaluation are only a fraction of what they might have been if the resources that have been available had been more carefully guided and targeted. However, evaluation has been an innovation and we are only now learning many of the things we needed to know about its implementation.

The fundamental lack of evaluation information that could contribute to the overall design of better programs is one of the most serious handicaps to extensive use. It has been a particular idea of this writer that on programs such as Title I or Title VII, for which we are expending rather large sums in local evaluations, we might find better ways to capitalize on that evaluation effort. If evaluations of compensatory programs were coordinated in even a minimal way, how much richer our evaluations might have been. For example, teachers's aides and other instructional aides are commonly used in various compensatory programs, yet, their effectiveness has been examined only in an incidental way in a few evaluations. What many of us have found in those examinations has, however, been disturbing. The data are not complete enough for conclusive statements about the effectiveness of aides; it might have been if a larger number of school districts had examined how aides were being used and what the effects were. The use of time is another important factor that affects outcomes that some of us have stumbled on in our evaluations. Again, data across a large number of districts collected through careful observation studies would be far better than estimated numbers on every child in Title I filled in capriciously from district to district. What are some of the ways such an idea might be accomplished? A number of ways can be imagined, varying from fairly indirect to direct and controlled.

In Texas, for example, a number of urban districts have regular meetings of their superintendents, curriculum staff, and evaluators. These meetings have led to the sharing of information among each group. The meetings of the evaluation group, the Joint Urban Evaluation Council, has resulted in similar studies on several topics in the different cities. Measures and reports have been exchanged. Support for the national directors of research and evaluation (DRE) group, which now meets annually for one day prior to the AERA meeting, to have more frequent meetings might have similar results at the national level. Such a forum could be used for the Department of Education to present a set of critical issues in compensatory education and possible alternative evaluation designs to address these.

The Title I technical assistance centers (TACs) might also be given the task of the informal encouragement of such efforts as they work with school districts. In informal discussions with one TAC center evaluator, I

discovered that such encouragement might already be happening. Another role that the TACs could play that would contribute in the same sense as the regular DRE meetings would be that of bringing the Title I evaluators together on a regional basis. Although mentioned already as a route to improved in-service training for evaluators, it could also be a stimulus to shared designs.

The fundamental lack of important evaluation information that could contribute to improved programs and failure to coordinate information that does exist are not the only handicaps to utilization, however. There are other factors. First, federal programs in general tend not to be of high concern to most local school boards and administrators. This can be interpreted more as a matter of time available and priority than as a lack of interest (Holley 1980). The federal funds in the Austin ISD, for example, are currently about $5 million, but this is only a fraction of the total district operating budget of well over $100 million. While this ratio is smaller than for many districts, it is still fairly representative. Austin has had far better attention to federal programs and their evaluation since the Board of Trustees adopted as one of its top priorities to improve the achievement of low socioeconomic and minority students. The board adopted this priority based on evidence of the enormous deficit in the achievement of those students relative to the total student body and because they represent a growing proportion of the student body. With this general priority for these students in the district, federal and state compensatory programs come into focus as one of the major resources for achieving district priorities. The Department of Education may find that strong federal program evaluation coincides with strong district evaluation.

Another obstacle to the use of federal program evaluation information is the lack of recognition of dissemination needs. Typically, an evaluation is coterminus with a program grant. For example, when the Austin ISD recently applied for a 2-month extension of its 5-year study of the Title VII bilingual program in order to provide for more extensive dissemination, the request was denied despite the fact that no new monies were requested. Had our office not felt the evaluation results were so important that we devoted nonfederal resources to dissemination efforts and continue to do so, much of the value of an important evaluation study would have been lost. Such constraints mean in many cases that no dissemination of findings ever occurs.

Still another barrier to dissemination lies in the area of communication. Anyone who has worked consistently in evaluation realizes that the time available for communication of evaluation results is never adequate. In a large district with many competing communication needs and with many evaluations, this is a severe problem. Efficient evaluation units develop communication strategies that permit the telescoping of information through shorthand forms for reporting. Since the data that will have impact at one level of the system are not the same as those that will have impact at another, the information has to be transmuted innumerable times before dissemination is accomplished. Resource needs for this effort may well not be recognized. Thus, the improvement of utilization must come both through better evaluations that produce more useful information and through better dissemination and promotion techniques on the part of the evaluation staff. Both efforts need better recognition and better support from Washington.

CONCLUSION

Variation is the theme around which this paper is written, and surely that theme has been demonstrated. Complexity of relationships may have emerged as a major subtheme, however. Figure C-2 lays out some of the funding, reporting, and advisory relationships as they appear from the experience of the author. Each year the complexity seems to increase with a concurrent decrease in the flexibility available to the LEA.

Every increase in complexity has tended to bring additional reporting demands to the LEA. Ultimately, the bulk of that reporting burden falls on students, teachers, and principals. To the extent that such reporting has moved beyond their central concerns, it becomes meaningless bureaucracy. This in turn has two serious side effects. There will be an increased dislike and disrespect for "evaluation," and there will be a decreased willingness to hear and utilize evaluation results.

Both Congress and the Department of Education would be wise to consider such effects in designing national evaluation requirements and systems. Ultimately, the most successful evaluation of federal programs will be that which leads to programs that are winners--winners for both students and staff.

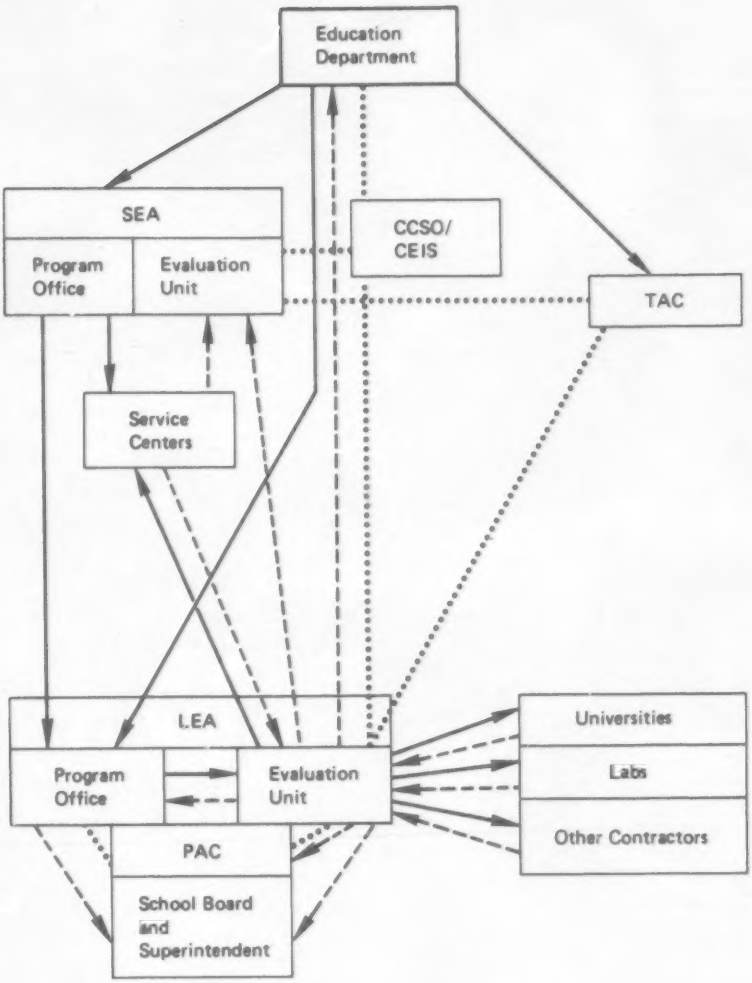

FIGURE C-2 Relationships in LEA evaluation of federal programs.

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APPENDIX

D

Individuals Interviewed and External Participants in Committee Meetings

JOEL ANTHONY, Office of Administration, Management, and Budget, National Institute of Education

KEITH BAKER, Office for Planning and Management, U.S. Department of Education

L. VAUGHN BLANKENSHIP, Director, Division of Applied Research, National Science Foundation

LOIS-ELLIN DATTA, Associate Director for Teaching and Learning, National Institute of Education

JANE L. DAVID, President, Bay Area Research Group, Palo Alto, California

PRISCILLA (PAT) E. DEVER, Administrative Officer, Program Evaluation, U.S. Department of Education

JOHN W. EVANS, former Assistant Commissioner for the Office of Evaluation and Dissemination, Office of Education, U.S. Department of Health, Education, and Welfare

JOHN GABUSI, Assistant Secretary for Management, U.S. Department of Education

EDWARD B. GLASSMAN, Office for Evaluation and Management, U.S. Department of Education

WILLIAM A. HIGHTOWER, Human Resources Division, U.S. General Accounting Office

HOWARD F. HJELM, Director, Division of Research and Demonstration, Office of Vocational and Adult Education, U.S. Department of Education

BOBBY R. HOOVER, Human Resources Division, U.S. General Accounting Office

SAMUEL W. HUNT, Staff, Appropriations Committee, U.S. Senate

*Affiliations of individuals at time of interviews

ALBERT B. JOJOKIAN, Group Director, Human Resources Division, U.S. General Accounting Office

JOHN JONAS, Legislative Assistant to former Representative Elizabeth Holtzman (author of provision in P.L. 95-561 to assess program evaluation in education)

ROLF F. LEHMING, Dissemination and Improvement of Practice, National Institute of Education

RICHARD T. LOUTTIT, Director, Division of Behavioral and Neural Sciences, National Science Foundation

ROBERT J. MARONEY, Office of Evaluation and Management, Program Evaluation, U.S. Department of Education

JOHN M. MAYS, Office of Director, National Institute of Education

LINDA MORRA, Office for Special Education and Rehabilitative Services, U.S. Department of Education

ELIZABETH R. REISNER, National Testing Service Research Corporation, former staff, Office of Education, U.S. Department of Health, Education, and Welfare

ALFRED R. SCHNUPP, Human Resources Division, U.S. General Accounting Office

DOROTHY A. SHULER, Office of Evaluation and Management, Program Evaluation, U.S. Department of Education

JOHN SEAL, Deputy Assistant Secretary for Evaluation and Management, Office of Management, U.S. Department of Education

MARSHALL (MIKE) S. SMITH, former Assistant Commissioner for Policy Studies, Office of Education, U.S. Department of Health, Education, and Welfare

CARL E. WISLER, Office of Evaluation and Management, Program Evaluation, U.S. Department of Education

JOSEPH S. WHOLEY, former Deputy Assistant Secretary for Evaluation, U.S. Department of Health, Education, and Welfare

ROSEMARY C. WILSON, Director, Division of Follow-Through, Office of Elementary and Secondary Education, U.S. Department of Education

THOMAS R. WOLANIN, Staff Director, Subcommittee on Post-Secondary Education, Committee on Education and Labor, U.S. House of Representatives

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